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NATURAL EDUCATION
WITHOUT TAXATION

BRUNK



THIS SMALL VOLUME IS

DEDICATED

TO THE INSISTENT DEMANDS OF HUMANITY ABROAD IN THE WORLD FOR
UNIVERSAL OPPORTUNITY TO ACQUIRE USEFUL KNOWLEDGE;

AFFECTIONATELY TO THE MEMORY OF MY DEVOTED TEACHERS AS

DISTINGUISHED ORIGINAL INVESTIGATORS IN SCIENCE:

DOCTORS B. G. WILDER, JAMES LAW, AND PROFESSORS W. R. DUDLEY,
WILLIAM ANTHONY, HENRY COMSTOCK, GEORGE CALDWELL, SAMUEL WILLIAMS.
SIMON GAGE, AND I. P. ROBERTS, OF CORNELL UNIVERSITY;

AND ALSO

TO OUR STAUNCH FRIENDS OF EDUCATIONAL EFFICIENCY AND FREEDOM

SUCH AS

WOODROW WILSON, ANDREW D. WHITE, AND CHARLES H. ELLIOT
UNIVERSITY EX-PRESIDENTS

AND

PROFESSORS, LESTER F. WARD, E. A. ROSS, F. M. LEAVITT, E. DAVENPORT,
ARLAND D. WEEKS, ELMER H. FISH, H. SCHNEIDER, F. G. BONSER,
IRVING KING, ALSO WM. R. GEORGE AND
DOCTOR F. B. VANNUYS.

NATURAL EDUCATION

OR
RATIONAL TRAINING
BY
THE SCHOOL TOWN SYSTEM
WITHOUT TAXATION

BY
THOMAS L. BRUNK, B.S., M.D.

AUTHOR OF
THE FOUNDING OF GOVERNMENT
BULWARKS OF INVISIBLE GOVERNMENT
THE GREATEST HUMAN TRAGEDY
OUR COLONIAL INHERITANCE
SECTARIANISM, ETC.

FIRST EDITION

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FOREWORD

No longer is the Paid-Student Industrial Training School an experiment. No longer are we in doubt about its need and feasibility. No longer can the big world of production wait for it to become the prevailing type of school to prepare the millions of our near-adults who now leave our schools to earn a living before they are trained to do anything but non-advancing jobs.

In 1906 a report to the National Association of Manufacturers by a Committee on Industrial Education, they said:

"Technical and trade schools should have opportunities for teaching their students all the phases of practical work by producing manufacturers of various kinds, and in addition may be **placed on sale to the general public.**"

This same report also said that the initiative to start such schools should be taken by corporations or individual mill owners.

From this and many other evidences as shown in this small volume, we conclude that the manufacturer, the miner, the lumberman, the structural engineer, the building-trades employer, managers of railroads, steamship, telegraph and telephone companies, and, in fact, men of affairs in general have little or no say as to how our public schools shall be managed, what they shall teach, how they shall be equipped, or how they shall be correlated with industry. In fact but few of our Producers, either employers or employees, have little or no say-so about them, because of the local and state incompetent and political Control over them. Sectarianism and Politics have more to do with our schools than Industrialism. Lawyers and Clergymen have more to say than Manufacturers and employers of labor. Mrs. Donothing in her mansion has more influence over them than the big Trades or Union Labor. In fact they are run by Influence and not by Science and Masters of Trade and Production.

Our System will not change itself. All change must come from without by voluntary organization. Therefore, if we want and must have Vocational training for the millions now thrown upon the industrial market with empty brains and helpless hands, the big men of Production and Distribution must get behind an educational enterprise that will fit our youth for the work of the world and fill our industries with fully equipped labor. And this educational triumph must be founded upon such Principles as shall make it impossible for the Control to fall into the hands

of the non-producing classes. The professional and clerical classes know very little about our large productional requirements. Why then should they virtually rule our schools?

It is the purpose of this modest booklet to present briefly the failures of our present school system, the Order of Nature to rationalize all schools, the Program of action to initiate a Supplementary System based on nature and biological principles, and the fundamental Democratic Control that will give every industry and calling its full weight in the Councils of our most essential and instinctive social work—the education of our children for a definite work-a-day purpose in an environment of natural freedom,

It is assumed that the writer is far from being alone in his conceptions of the basic educational institution herein outlined. There are many who have similar views and convictions but have found no place nor the time to express them. It is to these we are making an appeal to get into touch with the International University Association, become members by simply subscribing to the Principles given in Chapter 3, and help with their might and main to push along this most urgent work to a full realization.

If this truth-seeking, civic and manual-training work can thus grow on the soil of democracy, it will bear the fruits of democracy. That is to say, it will be as non-partisan, non-sectarian and non-exclusive as the Social Center of Wisconsin and other states, and we can hope with confidence that it will mature a priceless transformation in our whole social mechanism.

Alton, Ill.

T. L. B.

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CHAPTER 1

EDUCATIONAL DEMANDS AND CONTROL

Education is not a preparation for life—it is Life itself. And since Life is composed of two inseparable, elemental types of knowledge, the one used to support life, the other how to use it for the greatest social service, we are led to the conclusion that every man needs two educations, one that will fit him to work and another that will fit him to live. Then a properly educated man or woman is one who is trained both vocationally and liberally. The ditcher will not ditch all his waking hours. What will he think about when not in the ditch? It should be of deep concern to educators, as Davenport says*, that,

“The mind is an unruly member, and if a man has no training beyond his vocation, his intellect is at sea, without chart, compass, or rudder, and the human mind adrift is a dangerous engine of destruction.”

Therefore, in the consideration of Education in all its bearings upon human welfare, we must always remember that we are dealing with a Man as well as a Craftsman, a Civilian as well as a Producer, a Thinker as well as a pair of Hands. To succeed in any calling, specific knowledge related directly to that calling is required. Then also at the same time, to be safe and happy, both general and civic training are imperative.

THE PARAMOUNT ISSUE IS EDUCATIONAL CONTROL

With our coming to realize that the traditional view of education as an avenue to a Life of Ease is far from true, but on the contrary that it is no relief from drudgery or labor except as it enables us to utilize mechanical energy and to give us a more economic and intelligent direction to human effort, there is an irrepressible demand that our

*Education for Efficiency. By E. Davenport.

educational facilities be readjusted and brought under such a control so as to give to every human being not only greater powers to conquer nature, but also greater powers to adjust human affairs equitably and in accord with the unyielding laws of nature.

Never in the history of Education has the demand become so insistent as at present that the recruits to fill up the ranks for the industrial battles of life shall be equipped mentally and manually to step at once from school to mine, shop, field or counting-room, ready to do and assume responsibility. And along with this there has never been such a pressing demand that there shall be Educational Freedom—freedom from mental, religious, political and financial exploitation at the hands of those who have assumed authority to control the destinies of men. Our children demand freedom from arbitrary authority and that they become independent of the bounty and repressing rules of parent or school-board.

This age demands Universal Education, Universal Usefulness, and the conservation of all material and human energy. The demand for the saving of our exploited natural resources is exceeded only by the imperative demand that we stop the awful drainage and waste of our vital resources. The destructive fires of educational wrongs is greater than those laying waste thousands of acres of valuable forests and millions of value in buildings.

Then, too, the unjust waste of our wealth by the few who profit by our system of education and industry is causing such a universal protest that we are almost in a state of revolt against the drone and social parasite. "Let Everybody Work" is becoming our national injunction. We are learning that Life means Action, and he who attempts to live upon the sweat of other men's brows is accounted a social deadweight and a menace to human progress. And this revolt is growing more insistent that the control of our much lauded Educational System shall be liberated from politics and sectarianism, from local favoritism and incompetent, useless boards, from exploita-

tion by profiteers, from fattening contractors and do-nothing sinecures, from local whims and fancies by self-appointed neighborhood "magnates."

EDUCATION WITHOUT REPRESENTATION

So complete is the control of our Schools that the plain people are not represented in the deliberations over their management or over what they shall teach or how they shall be built to meet the demands of our general welfare. Like the fashion-plates from Paris, the plates to fashion the minds of our children are also designed by the "proper authority" and deftly slipped into our "splendid free-school system" so that these children may become "responsive to the common institutional demands which rest upon men in general." There is no denying the fact that our educational system is not FREE in any sense of the word. And our leading and advanced writers are saying things. Professor Mead of Chicago University says* :

"To a large extent the educational policy of most of our large cities has represented a fluctuating compromise between forces that have been by no means all educational forces. The school-teacher and politician have been standing subjects for the wit of humorous papers."

Lester F. Ward says† :

"Both public and private educational institutions have always been and still remain chaotic. False notions prevail as to what education is and is for. The moment a step is made beyond the rudiments, all object seems to be lost sight of, method is abandoned, organization is not thought of, and a mass of purposeless and useless rubbish is forced upon the learner."

When we take a square look into our much-controlled system we find that the Text-books are milled by school-book monopolists, all of whom are "vested-interest protee-

*Bulletin No. 14, 1914 U. S. Bureau of Education.

†Applied Sociology. By Lester F. Ward.

tionists"; that every little jerk-water town has its "Board of Education" clothed with the legal robes of authority to "sit" on such text-books as they in their "wisdom" may choose, and also pass upon the dove-like harmlessness and the social and political incompetence of the persons who are to mould the future citizenship of their community. This same Board with its dictatorial powers often fatten upon book, building and apparatus contracts, and sanctions and gives moral support to the efforts of sectarian groups to dominate their acts and also the imagination and thots of our youth. Thru this local domination, our children are taught to venerate and revere the very institutions that are enslaving them and, too, in the face of the protests of a large majority of our citizenship.

THE CORPORATION AND SECTARIAN SCHOOL STILL RULES

In a Report of the Educational Bureau at Washington for 1912, we find that out of 602 universities, colleges and technical schools which reported to the Bureau for that year, 89 were under the control of the State while 513 were under sectarian or corporate control. While the universities had the largest individual attendance, yet the total attendance at all the State schools as compared with all the sectarian and corporate schools was as about one to five. Since but about two to three per cent of the student bodies of our universities and State colleges are females, and since ninety per cent of our common school teachers are women who have under their instruction and influence eighty-five per cent of all pupils who never attend any high or collegiate school, it follows, that our teachers get their higher education largely from sectarian and corporate schools, and that an immense majority of our children enter life with their minds clouded, confused and bewildered by the ERROR that filters down from dominated college to teacher and without question from teacher to pupil.

To the young inquiring mind, the world is full of mysteries. For each it demands a CAUSE, and since for many, especially in the Biological field, the teacher cannot assign a true cause, the insistent, growing mind must be satisfied with a false one. And a false reason once fixed in the child-mind by an authority he does not doubt. it takes hard study and often the remainder of his life in an artificial environment to effect a change, at least for some of vital consequences affecting the renouncement of friends and beliefs forming the very tap roots to his very existence.

Many of our leading educators realize the power of this insidious control and in recent years have offered some strong protests. One made at the 1914 meeting of the National Educational Association by Superintendent J. H. Francis of Los Angeles is a notable instance. He said:

“Every child has the right to FREEDOM in the pursuit of his normal development—freedom from mental, religious, political and financial exploitation at the hands of those stronger than himself.”

To the mind of the writer this is the most laconic as well as the most comprehensive declaration of Educational Freedom ever uttered, and one, too, which the American and other peoples must endorse and follow if we are to get rid of the control of that element of society who wish to live without labor.

TEACHERS' MOUTHS AND SCIENCE MUZZLED

So long as Error enslaves and gives control over labor, so long will those desiring this control protest against the teaching of Truth. Error has been commercialized and capitalized and the resulting ignorance in economics and in Causation as applied to social welfare has been and is a strong factor in the concentration of wealth and in wealth accumulation by trickery. And any teacher who attempts to free the coming citizen from this form of bondage is butting his head against a stone wall. Many a martyr of the school-room has been blacklisted, humil-

iated and relieved of his position simply because he dared to trace home the sources of our social distempers and group controls.

Not only are teachers' mouths closed, but many of the sciences are either not taught at all or if taught are so pruned down that they become mere harmless negatives with which to amuse and decorate the child-mind. Candidates for professorships in many American colleges are rejected on account of "unsafe views" about ERROR. And the proportion is astounding. Ex-President A. D. White of Cornell University makes this amazing disclosure*:

"From probably nine-tenths of the Universities and Colleges of the United States, the students are graduated with either NO knowledge or with clerically emasculated knowledge of the most careful modern thought on the most important problems in the various SCIENCES, in History and in Criticism."

We see, therefore, that our first duty is to free our Teachers, and, second, to take the shackles from the hands of Science. And this can be done only by placing the control over the property of our schools in the hands of a large body of persons who will subscribe to the principle:

"Whole Truth can be obtained only when all those seeking it own in common the property necessary to reveal Truth and have final authority over said property."

BONDHOLDERS' CONTROL

Most of our large cities carry a large bonded indebtedness upon their School Plants. Most people do not see anything in particular wrong about such a debt. In fact, they usually endorse it under the impression that they are getting better facilities for their children sooner than they would by taxation. But this system is loaded down with spoliation and foul play. Buildings erected forty

*The Warfare of Science and Theology. By Andrew D. White.

years ago by this same system, we are discarding as inadequate to the high-pressure needs of this generation and new ones are erected by the contract-fattening class. We are getting buildings far more expensive than they should be, not to make book-study more easy or the comfort of our children greater, but to make "fat" jobs for architects and contractors and a place for more materials made by brick and other manufacturers.

With the coming of a more democratic industrial school system, but few if any of our present million-dollar monuments to an era of white-fingered book-training will be of much use. Our two- and three-storied buildings also contribute largely to this age of Tuberculosis, Anemias and Insanity. Besides building more for utility and health, there is every reason why our school buildings should all be under the federal government and be built upon some concerted plan, suited to expansion and change. We are now in a constant state of experimentation with no settled policy except that all buildings must conform to the "Confinement Method" of teaching our children how NOT to make a living and become self-governing.

But paying Interest and Principal is the least of the wrongs the public suffers under the Bond system. In Kansas City the schools are bonded for \$5,000,000. The question arises, "Who really owns those buildings?" Who controls them? Who dictates their uses? Who nominates new members for the School Board? Who holds a silent control over what shall be taught? The Bondholding Class virtually own the properties in which they hold bonds. It is so in Railroads, Mines and Packing Plants, it is so in Schools. And this ownership is the stone-wall in the way of Democracy.

CHAPTER 2

THE PRESENT SCHOOL SYSTEM ITS FAILURE, INADEQUACY AND INEFFICIENCY

It is not the desire nor the intention of the writer to condemn our School System in total nor to overlook the value it has been in disseminating much knowledge more or less practical and uplifting in nature and of lowering the percentage of illiteracy so that it is now quite a dishonor not to be able to read and write. What is needed is not criticism but constructive light to help us to supplement or reconstruct the present system so that it shall be truly adequate and efficient for the requirements of industry and for the needs of an advanced state of social justice. No one has the right to point out the wrongs of the present system before he has a clear idea of what should be done to improve it and make it respond to the overwhelming demands of our most aggressive and enterprising nation and age.

THE ORDER OF NATURE IN EDUCATION

The basic failure of our present system is that it is not founded upon Nature. It is almost wholly artificial, abstract and far removed from the great storehouse of all fundamental knowledge as found in the world round about us. Inasmuch as the knowledge of most value to human welfare pertains to making Nature yield to the wants of man, it follows that any system of training that neglects or excludes this fundamental knowledge or does not follow the orderly sequence of Nature in presenting it to the young mind, is not only inadequate and a failure, but borders on the twilight zone of scholastic teaching, to keep our children in mental bondage.

Then before we point out some of the failures, inadequacy and inefficiency of the present system, it is best to lay the foundation stones for a system that cannot fail because laid in the cement of eternal verity. Nature is eternal, orderly, unyielding, a strict accountant and never

fails to overthrow any man-made system, law or state not in accord with her array of positive forces. Therefore it behooves us as sane beings to bow to her mandates and seek out the pathway she would have us follow.

The first essential, then, is to adopt the Order of Nature whatever that may be and make it the rule of Pedagogy. And the second great principle upon which to build a sound educational system is to design it so that every human being of mature age and sound mind shall come into possession of the Laws and Principles of Generalized Knowledge. When the great truths in the natural order are known, every minor truth, every small item of knowledge, every detail in the whole range of experience and of nature, finds its place immediately the moment it is presented to the mind. And only to the mind in possession of general truths do such details possess any meaning or value.

Fundamental education is but a mind record of natural causes regarding the properties and relations of matter. And this record is acquired thru Causality the most fundamental faculty of the human mind. It is the faculty that asks Why this and Why that and makes a normal child a veritable question mark. When the child learns the simple causes of natural phenomena it soon puts them together in generalized form and we say that he has acquired Generalized Knowledge. He now can THINK, for in knowing the CAUSE of things one can THINK and not before.

Moreover, when the mind is approached by the relation of Cause and Effect, study is made a pleasure. Learning things naturally related possesses a charm that carries the young mind along irresistibly step by step up to the more and more complex and it is all retained. He has seen it, he has heard it, felt it, tasted it or has noted its sweet odor and then has asked the WHY about it all till he has a full understanding of the thing from first-hand knowledge. Evidently he can get none of this from a printed page. The mind must come into contact with

matter in all its forms to study Cause and Effect in the concrete. The record on the printed page with nothing material to show that one thing is the cause of another, requires an arbitrary, unnatural act of the mind to try to comprehend it, and learning by it alone becomes slow and tedious as well as uninteresting.

THE ORDER OF NATURE FOUND IN SCIENCE

All nature, every conceivable phenomena, fact, force, property, substance or thing in the entire universe finds its place and explanation within the scope of the six fundamental sciences, according to Ward,* arranged as follows in their ascending order from the standpoint of dependence and subordination :

ASTRONOMY, PHYSICS, CHEMISTRY, BIOLOGY, PSYCHOLOGY and SOCIOLOGY.

These sciences diminish in generality and increase in complexity as we ascend the series. Astronomy is the most general and least complex while the phenomena of Sociology are the least general and most complex. And this Law of Science is the TRUE ORDER OF NATURE and all the phenomena of the Universe present themselves to our comprehension in this order. The relation also is a causal one; and from a pedagogic standing we must study nature in the order of these sciences that we may see how each following science in the series depends upon the phenomena and causes of the science preceding it. As Ward says regarding this series,*

“Any attempt to study the higher ones before the lower ones have been studied, not only must involve a great waste of time and energy, but must fail to furnish any true knowledge of science and of nature. It must also be very difficult, irksome, and tedious, and what little is learned is speedily forgotten.”

* I bid

All other sciences are related to and can be classed under these ground-work sciences. Geology and its related branches readily fall under Astronomy; Engineering under Physics and Chemistry; Zoology and Botany and their branches under Biology; Economics, History and Pedagogy are now classed as special social sciences and belong to Sociology.

And what should be done in all our schools in arranging studies according to the Order of Nature is to have every science follow the sequence of the six basic sciences. Biology, Physiology, Medicine, Zoology or Botany should never be studied prior to the study of Astronomy, Physics and Chemistry. Neither should Psychology be studied before Biology and the preceding sciences in the series. And above all, no one can fully grasp social problems nor government nor economics nor social adjustment, the highest knowledge of human conception, before having a General Knowledge of the five sciences named first in the Natural Order series. The ignorance of these related sciences is the cause of the division of society into contending factions and of all manner of strife and war.

THE PRIMARY END OF AN EDUCATION

Is to give strength to one's reasoning and thinking powers, and to learn how to use and apply these powers to the welfare of self and society. But with educators there seems to be no clear-cut line of procedure or outlines of study or sequence to attain the greatest mind strength as well as the most comprehensive grasp upon the knowledge found in Nature. When asked a specific use of a certain study, they commonly answer, "to develop the mind". This vague phrase carries with it a false conception of what the True Order of Nature is and what bearing it has in giving order and sequence to the reasoning and thinking powers of the mind. Some studies destroy the reasoning faculty and they find a rather large place in our average curricula.

While mathematics, which is not a science, may "discipline the mind in exactness and consistency of thought" as has long been held, yet if "exclusively pursued, destroys both the reason and judgment". As Ward says*,

"This is because it consists in prolonged thinking about NOTHING. A 'point' has neither length, breadth, nor thickness. It is NOTHING.

A line without thickness is equally NOTHING."

It is only when these terms are invested with material attributes, that the mind really thinks. "Geometry could never have existed but for men's experience with real things." Purely hypothetical mathematics is demoralizing to the thinking powers.

"THE ONLY THING THAT CAN 'DEVELOP' OR 'STRENGTHEN' THE FACULTIES OR THE MIND IS KNOWLEDGE, AND ALL REAL KNOWLEDGE IS SCIENCE."

Science furnishes the mind with Realities. These constitute its contents, and the power, value, and real character of mind depend upon its contents. Without knowledge, the mind, however capable, is impotent and worthless.

"Science is the only working power of society," says Ward, "and the working power of society increases in proportion to the number possessing it. Only a few minds possess any considerable part of it. All are capable of possessing it all. The Paramount Duty of Society therefore is to put Knowledge into the minds of all its members."

LOWEST AND MOST DANGEROUS CLASS, SOCIETY SHOULD EDUCATE

Probably the most irrational thing society does today, is the cruelty it metes out to the so-called criminal classes. The more we punish them the more they increase in number and the greater the rebound on society in expense and industrial loss. About 13 per cent of criminals have de-

* Ibid

linquent minds and should be in a sanitarium for treatment, and 87 per cent are forced into the criminal class by the absurd and abnormal conditions society forces onto them. If, then, society has set up conditions of living such as to drive even a small per cent of its members into law-breaking, high or low, big or little, society is to blame and not the one who commits a crime. This is the view now taken by all our leading Sociologists in our Universities.

And what society should do most of all is to rescue every child from our slums of groggeries and bawdy-houses and give them the Generalized Knowledge in the Science Series forming the Order of Nature and in the midst of Nature. With this done and society opens the doors of opportunity in the Order of Nature, the 87 per cent of sane criminals will entirely disappear.

Ward, our greatest social philosopher, says*:

“The people that make up the slums and the criminal classes of society are capable of being made good and useful citizens,—nay, in the normal proportion of all classes, they may become agents of civilization and may contribute to human achievement. In a certain very proper sense **SOCIETY HAS FORCED THEM INTO THIS FIELD** and they are making the best use they can of their native abilities. There is no other class in society whose Education is half so important as this lowest and most dangerous class.”

IS OUR SCHOOL PLANT FIT?

BUILDINGS FOR THE CONFINEMENT METHOD

With the constructive objects of education before us and the Order of Nature as the guide in the formation of study courses, and the broadening altruism with it all to inspire us, can we not turn to the question of introspection with honesty of purpose and face the defects in the present school system? Shall we let our better judgment

*Applied Sociology. By Lester F. Ward.

be misled by pretentious structures with heat, light and ventilation adjusted with scientific accuracy and our sense of duty blunted by makeshifts in training under unnatural confinement?

In the modern factory, the modern mine, or on the modern farm, all run to get the largest output with the least waste and cost, every detail is considered and guarded. Buildings are erected and machinery installed and implements used fitted to the needs of the industry. As new inventions or methods are introduced, the old are discarded. The efficiency of the new outweighs the cost of making the change. In other words, industry tries to keep pace with advanced methods of production and distribution. And inasmuch as all knowledge is concerned with Production, Distribution and Consumption, it follows that both the knowledge of the science and of the art of these three great divisions of man's activities should not only be taught in a rational school system, but also should keep abreast with all the advances made in all the industries as well. A school to be adequate should be the embryonic factory, mine, farm, counting-house, railroad and of all the great group of vocations. Is our School Plant adequate in any sense of the word to these requirements? Does it keep pace with Industry? Does it prepare boys and girls for anything in particular?

Leavitt of the Chicago University states the case strongly thus†:

“We take boys and girls at a time when their impulses are strong for active participation in the vital interests of life and we confine them within narrow schoolroom cells with books and pencils as the chief and sole means of participation. We take them when their individual differences in capacity, interests and prospective careers are properly matters of growing and vital concern and we require them to pursue a uniform course of study having little direct relation to those specific powers, motives and prospects.”

†Examples of Industrial Education. By F. M. Leavitt.

Our school plant is designed almost entirely to teach the abstract on the printed page, and no young mind is fitted for nor interested in the study of words. Not books but THINGS hold the interest and attention of children. And not till a School Plant is devised which will deal with THINGS and PROCESSES primarily and with the language, mathematics and other elementary secondary branches needed in the study and application of THINGS and PROCESSES, will we have a School Plant following the natural bent of every child and the trend of all life itself.

OUR TEXT-BOOK MEDLEY AND OUR APPARATUS JUNK.

And it is a medley and a junk heap, and unprejudiced observers admit it. Uniformity, thoroging instruction facilities and the latest and best of everything to make school-life something real and a stepping-stone to a life of usefulness, would mean Federal Government CONTROL and that would not suit the multitude of profit harpies at the heels of our present system. It would not do for a child to have a set of books he could use in California as well as in New York. No, the parent must provide for a change on moving even to an adjoining school district two miles away. Then, too, the "new teacher" wants some new-fangled spelling-book or language-book (full of System pæans) and the Board orders the change. The patrons protest, but the books must be bot, "the Board has the authority". Kansas as a state publishes her school text-books and furnishes them FREE to all her schools. Some few states buy the school-books for the whole state from private book concerns and furnish them free, but what a large portion of our country is still in the hands of Profiteers!

Then, too, text-book mongers have learned that it is to their PROFIT to pander to the clamor for more objective features in their books. The school "Board" has no authority to have a cow or a mule or a skunk at the school

for instructive purposes, hence the demand for the "half-tone, true-to-life" picture of the same to hold the interest and curiosity of Johnnie. So today our "Texts" have become portable picture-galleries with "catchy" filigrees to make "talking points" before the Text-book Committee. Not to build Brains and LIVES OF ACHIEVEMENT, but to build FORTUNES, are text-books now made, and our SYSTEM maintains this exploitation of our children. Great System, isn't it?

However "traveled" you may be, you have missed many of America's school-room sceneries. The scenes are as frequent as are High Schools and sectarian colleges. I refer to the "grand" display of Apparatus. It is almost tragic in its disorder, odds and ends and ancientness. Some pieces date back to when grandma attended school and they still have dust upon them she helped to make. Then, too, each piece has a historical halo of regard and local enshrinement of bygone selectors of this "concourse of atoms". "Mr. Brown, who was here twenty years ago, selected this piece. And Mr. Jones, whom everybody loved, made this piece. He was so enthusiastic over electricity." And so on with the whole confusion of the planless lumber with which our children are supposed to get the fundamental knowledge of the forms, products, functions, harmony, change, properties, laws and classification of Nature.

Instead of apparatus composed of pieces made by regular manufacturers to do work in regular factories from which the latest technique can be learned and the latest mechanism studied, "Boards have the authority" to buy from "Junk" makers only apparatus "toys" for High Schools, Military Institutes, Seminaries, Parochial Schools and other places where the coming generation will not get too interested in the application of the Physical Sciences to life's needs, and lose interest in litanies, fairy tales and smart-set jargon in French or Italian.

TRAINING SCHOOLS FOR "GENTLEMEN"

What else is an appropriate appellation for our so-called Manual Training Schools in which not a single piece of machinery is used as are found in regular factories? They are but schools for children whom their parents never expect to toil for their living, but who must learn the use of tools to keep up a semblance of sanctioning the demands of a growing Democracy that requires "Everybody to Work".

How do those who think that the Manual Training School prepares one for the real activities of life, square their opinions with the following quotation from F. G. Bonser, Director Industrial Arts, Columbia University*:

"I count it a travesty upon our schools and a tragedy for our boys and girls that a number of large hardware dealers in New York who conduct supply houses for the whole country, carry a large stock of goods no longer used at all in the trades, but carried to meet the steady or even increasing demand of the Manual Training departments and schools of the country."

"The work of a thousand Manual Training Teachers in this country, fondly supposing themselves to be vocational trainers for present-day industry, shows how the factory system with its division of labor, its machine processes, and its applied science has entirely escaped them."

THE "TRY-OUT" SYSTEM

Manufacturers today are forced to go into the open market and take such labor as they can find and "try" it. They often take half a dozen on trial to get one for a particular process. This is expensive, haphazard, and unsatisfactory. In large Corporations schools are maintained to prepare labor for their one industry, and this, too, imposes a heavy expense and an environment for the student not conducive to natural training and a successful life.

*Bulletin No. 14, 1914, U. S. Bureau of Education.

To get first-handed information as to what large manufacturers want in an educational institution to prepare workers for industry and thus avoid the "Try-Out" system, the writer called upon seventeen in Kansas City. I was agreeably surprised at the unanimity of opinion that our present Manual Training work is a failure so far as they benefited by it. One said, "It always makes me smile when I visit a Manual Training school to see the old lathes they use." When asked, "How would it be if we had training institutions where any one of any age or sex could be prepared for some definite skilled work so that he or she could step from training school into the factory and start at once as a skilled operator upon the regular full wage?" Invariably the answer was, "That surely would be great!" I said it could be done and it must be done. They all expressed a deep interest in the School Town System described in Chapter 5 and said they would be willing to donate machinery or products which they make for study and operation to adapt the school to the exact needs of their several industries.

OUR SCHOOL SYSTEM INELASTIC

Our present system has little or no adaptability to the inequalities found in children. The reflective and perceptive, the commercial and mechanical, the professional and literary types of minds are all crowded together into the same room, with the same books, the same teacher, the same discipline, the same method of grading and advancement, the same number of months to attend each year, for the same amount of unrelated book-stuff. The abnormally deficient and the abnormally overdeveloped, those of good and bad special senses, those with wide mental capacities of attention and memory, are all treated with the same prescription daily. And for those with little or no imagination, only the most exaggerated and distorted mind pictures are developed from the printed page. This is well illustrated by city children expressing astonishment and asking such trivial and amusing questions on seeing

for the first time the commonest as well as the most important animals and plants which supply the everyday wants of man.

Not the picture but the real cow, the real apple tree, the real plow, the real engine, must be substituted for book-trust pictures wearily reviewed every day in a million-dollar building. The plan of building and teaching at Smith's Agricultural School at Northampton, Mass., with an arena in which animals and crops are judged and studied, more generally applied to our whole system, is far superior to watching Johnie six long hours a day to see that he does not do anything natural when virtually imprisoned in a hard seat from which he dare not leave or whisper or break the monotony by throwing a paper wad. It is almost cruel to keep children inactive longer than an hour and even that hour should be one of movement and animated talk. Confinement is ultra antagonistic to every child instinct.

EVILS OUR SYSTEM FAILS TO CORRECT

One of the strongest indictments of our system was uttered by ex-President Elliot of Harvard before the Connecticut State Teachers' Association. He said:

“These evils fall under three heads: 1. Misgovernment instead of public efficiency. 2. Dissipation and idling instead of a constructive use of leisure and recreation. 3. Cleavage and class feeling instead of social order and public spirit.”

FAULTY EDUCATION GIVES GOVERNMENT CONTROL TO THE DRONES

Let us see if President Elliot was right. If so, our system should be revolutionized at once. A Democracy is one in which the government is under control of the whole people. But to have such control every citizen must have the knowledge necessary to give him an enlightened vote. He must have the Generalized Knowledge referred to in this chapter else he will not know nature's plan of jus-

tice. Aristocracy has planted in this civilization certain customs of ownership, especially of land, that keeps it intrenched and forces the laboring masses to support it in idleness. These customs are taught from the standpoint of being "right" thruout our whole school system. The child comes from school with these false customs and practices fixed in mind as the only method of dealing with property; and not knowing the disasters that come to society from them, he falls in line as a citizen who actually supports what enslaves him.

Also knowing that ignorance of statecraft and of social economies is favorable to government control by the large property owners, they have always found that control over law-making is a powerful means of diverting wealth into their hands. Why work if a crooked law shifts wealth from the ignorant, honest worker to the wise, dishonest idler? The leisure class must rule or starve or beg or steal or become producers. To force them into the producing class, a large proportion of the willing workers must gain a knowledge of how to rule as well as how to produce. And that means that Statecraft **MUST BE PRACTICED** in any system of education looking to the freedom of workers from drones.

Our schools are managed upon the same sectarian basis as the political party, church, public press, league and club, and hence are run favorable to these groups. They do not invite an all-together expression from the whole community as to any public policy. Therefore, being ruled out of the right to manage their own affairs, the people have no experience in their all-together business and of course cannot aid in rectifying the causes for misgovernment. Like learning to plow or to construct a house, government must be dealt with in the concrete to be comprehended and means of social adjustment discovered. The beginning of our legislative, judicial, executive and informational departments of government should be coincident with the beginning of school. The school will never be the seat of true Democracy till it is the seat of diffusing the knowledge of all the industries and affairs of men.

Weeks supports these views in this language*:

"It by no means follows that popular education guarantees Democracy. Indeed it may be the source of undemocratic conditions. It may thwart Democracy. Popular education may promote Democracy only when the curriculum prepares the individual for the three great economic processes of Production, Distribution and Consumption. When this knowledge is diffused throughout society, class distinctions melt away and Democracy, so far as nature permits, must prevail."

"First of all, the courses of study should be formed so that all should be trained as producers. If all are trained as producers there will be a tendency for all to continue to be producers. Aimless idleness does not appeal to the man or woman who has been schooled in industry. If all are trained to do useful work, society would appreciate the workman's needs. If the sheltered classes knew from experience how slow and painful often are the processes of production, would there not be a new spirit in the world?"

OUR SCHOOLS ENCOURAGE DISSIPATION AND IDLING

Of all the shortcomings of our "free" school system, the unintentional encouragement to dissipation and idling is the worst. Wheeler of Clark University has said:

"Learning now is secondary to pleasure at our colleges. It is no secret that there are loafers at Harvard. And what is true at Harvard is true of all the colleges of the Atlantic seaboard."

This is the natural resultant of a system teaching largely how to consume and not how to produce and distribute justly.

But probably the greatest factor in augmenting the idling, intemperate, shiftless, homeless classes is our eco-

*The Education of Tomorrow. By Arland D. Weeks.

nomie shortsightedness in thrusting 85 per cent of our children into the awful tragedy of an overerowed market of unskilled labor. Of those who thus pass unprepared into the industrial struggle between the ages of 12 and 16, about 90 per cent fill blind-alley jobs to which there is no advance. They become the great horde of Job-Hunters who float from city to town without home, reputation or friends. As Professor Ely of Wisconsin University says:

“The problem of child idleness is a far more serious question than the problem of child labor.”

And speaking of this horde as a national calamity, Professor Bonser of Columbia University asks*:

“How long must this army of ambitious, capable boys and girls be allowed to go to the scrap heap of adult inefficiency, disappointment, and too often of pauperism and crime? How long must this army of tens of thousands ask for the bread of real, present-day life, of opportunity to prepare for gaining an adequate, respectable and efficient living and citizenship, and be given the stones of academic gymnastics?”

Again, treating those under 17 as incapable, irresponsible beings without judgment, without reasoning power, without self-assertion or the capacity of self-support, is another reason for a country-wide shiftless, game-seeking contingent of thousands of capable young men and women. William R. George, founder of the Junior Republic, says in this relation†:

“Boys sometimes become so desperate from being preached at and treated as irresponsible beings, that they commit violent and often criminal acts to assert their self-respect. Every youth has an instinctive fellow feeling for every other youth who falls into the toils of adult-made laws. The lad who does a dare-devil act against prop-

*Bulletin No. 14, 1914, U. S. Bureau of Education.

†Citizens Made and Remade. By William R. George.

erty has the open or secret admiration of practically all youth who know him, and he knows it. Give these selfsame law-breakers full responsibility of property, of self-support, of law-making and civic responsibility, and at once the point of view is changed and the dare-devil heroism disappears. They see it is a menace to property and the stability of society in which they now have a stake."

Our youth yearn for activity, for power of control, for self-assertion, but unfortunately in our training plant their wills are repressed by Board Rules in which they have no voice, adult laws, and too often parental and teacher admonitions that belittles and discourages them. Thus having no responsibility, no hand in making their school-buildings, their clothes, their food, their books, or their tools, they are in the position toward all these as mere consumers. And not costing them labor, they have no appreciation of their values and therefore tend to waste them ruthlessly and even boast to their fellows of their prodigality. Thus school-buildings costing thousands are carelessly mutilated, books destroyed, food wasted, tools and machinery ill-used and their clothes are scuffed out with no regard as to how they are to be replaced.

CLEAVAGE AND CLASS FEELING ENGENDERED

From the fact that our schools are class-ruled, they naturally follow the caste-forming strategies. And prominent among these undemocratic hostilities are as follows: the Doctrine of Inequality, the admixture of true and false causation, the teaching of fashionable nonessentials for show, and the absurd worship of military and big land-owning "heroes". Class-feeling and division are the only resultants from such an intellectual desecration.

The Doctrine that the difference between the upper and lower classes of society is due to difference in their intel-

lectual capacity, something "preordained" and inherently inevitable, is entirely false. Every form of sophistry is employed to uphold this view. We are told there must be social classes, that they are a necessary part of the social order. That there must be laborers and unskilled workmen to do the drudgery of the world. That there must be menial servants to wait upon us. That only the "Lords Spiritual and Lords Temporal" are capable of controlling social and national affairs.

This is an old Doctrine and it is only within recent years that our deep students of society have brot to light the real truth regarding intellectual capacity, and they are now declaring that "Intellectual inequality is common to all classes". Ward tells us that,*

"If an equal number taken at random of the lowest stratum of society had been surrounded from their birth by exactly the same conditions by which the intelligent class have been surrounded, they would in fact have constituted the intelligent class, instead of the particular individuals who happen actually to constitute it."

In other words, class distinctions in society are wholly artificial, depend entirely on environing conditions, and are in no sense due to differences in native capacity. What was once the slave class in the Middle Ages is now furnishing the brains of the world, and if there is any intellectual inferiority it is found in the poor remnant that still calls itself the Nobility in some countries.

Along with this Doctrine of Inequality there followed the fallacy that only the "well-bred" could understand TRUTH. But this, too, is false. Quoting Ward again, he says:

"Helvetius maintained that all Truth is within the reach of all men. This is certainly true for all practical truth. And truth that is so subtle or involved that it cannot be grasped not only by the average mind, but by minds of minimum power, is likely to be of little practical value as

*Applied Sociology. By Lester F. Ward

a guide to conduct and an aid to success in life. Most of the so-called 'knowledge' so difficult to acquire is not in fact knowledge or truth at all, but fine-spun theory, hair-splitting metaphysical disquisition, and mere mental gymnastics, by which the mind is violently exercised over problems without objective content. It is largely 'abstract reasoning', by which is meant reasoning without anything to reason about. This is and ought to be difficult, because it is useless. But as soon as a real something is furnished to the mind, it is not only readily perceived but easily reasoned about by all sane minds. And such knowledge and truth are always useful."

The second cause for dividing society into classes is found in mixing True and False causation in our schools. This fact is pressed home and convincingly stated by Principal Henderson of a Philadelphia Manual Training school thus†:

"The ability to be consistent is a proper test of intellectual progress. A great advance has been made when the Beliefs in one department of thot are not entirely contradicted and neutralized by the Beliefs in another department; when our science does not contradict our religion, and our religion our politics, and our politics our sociology. With religion and ethics and sociology and biology in a state of incoherence and empiricism, it is manifestly impossible for education to be rational.

"Education has too often been a thwarting of the spirit, an attempt to fit a square plug in a round hole, a pressure, a dead weight, rather than an unfolding. We shall succeed when we abandon our educational nostrums, our tonics, our pills, our philosopher's stones for turning ignorance into knowledge, our short-cut methods of

†Cause and Effect in Education. By C. H. Henderson. Popular Science Monthly, May, 1894.

salvation for making BAD into GOOD. We shall transform education into a science and educators into scientists when we give up these off-hand remedies, these false views of causal relationships, and come to recognize the simple fact that the child is an ORGANISM, and that the processes of growth and education must conform to the Laws of Organisms. We say the boy is bad when we ought to say that his life conditions are unfavorable; that his parents and teachers are unwise."

The third element in our system which keeps up class distinctions, is the teaching of traditional studies and those which our smart society dictates as "classic" and of course favorable to the maintenance of itself as the ruling and non-producing class. And this SHOW and IGNORANCE is keeping a large percent of the producing classes duped into the belief that if their children can become "cultivated" with Latin, Greek Myths and poetry, that somehow they too will be able to take their places in the exclusive class and not be obliged to live by drudgery. As Herbert Spencer says:*

"Men dress their children's minds as they do their bodies, in the prevailing fashion. If we inquire what is the real motive for giving boys a Classical Education, we find it to be simply conformity to public opinion. The immense preponderance of "accomplishments" proves how USE is subordinated to DISPLAY. Dancing, deportment, the piano, singing, drawing—what a large space do these occupy. * * * Not what knowledge is of most real worth, is the consideration; but what will bring most applause, honor, respect, what will most conduce to social position and influence, what will be most imposing."

THE PARAMOUNT DECEPTION

While military and royal oppression have been largely

*Education. By Herbert Spencer.

overthrown and the power of the nobility and the priesthood have been broken, the unabated fact remains today that we have new forms of oppression, new forms of slavery and serfdom, and a new type of feudalism, all of which are quite as effectual in supporting an idle, spendthrift class and in degrading the masses into servitude as were the older forms of oppression intensified by religious persecutions. The consummate deception of today is in preaching and teaching pernicious and false economic doctrines to the exploited workingman and to his children as well as false historic facts regarding the origin of our institutions.

Our children leave school, most of them still children, with distorted and exaggerated estimates of the "greatness" and "justness" of our government, the "magnificence" of our western civilization over all others, and the "wonderful efficiency" of our social and political institutions. They are surcharged with the eagerness to enter the field of exploitation to become rich, to become a Lord over a million acres, over a railroad system, over the stock exchange or as a magnate dictating the financial destiny of tribute-paying toilers.

Both children and teachers are grossly deceived into the belief that we are enjoying "the best school system in the world", and that the system prepares one for the "exceptional opportunities" awaiting the magic touch of graduates "to turn base metal into gold." In this connection Dr. Russell of Columbia University made this open comment :

"The public school system of the United States is tending to develop grumblers, faultfinders, Socialists and Anarchists. The greatest peril of our education today is that it promises an open door to every boy and girl up to the age of fourteen and then turns him ruthlessly into the world to find most doors not only closed, but locked against him".

University men almost with one accord are condemn-

ing our system and pointing out its deceptions. Dr. Irving King of the University of Iowa makes this incisive comment:†

“Our public school work today is being subjected to a rapid-fire criticism of a most searching order. Some of it must be seriously faced. That a good deal of school work from the beginning to the end does not make for vital contact with the child and youth is fairly evident. * * * The work of the school is so abstract and unrelated to the interests of life that it fails to grip them in any impelling way.”

If then we are willing to investigate our system without prejudice, it takes but little insight to see that the pathway of our present school life is artfully banked with perfumed roses and diverting for-get-me-nots to conceal the hideous thorns and deadly poison-oaks found in our past and present social and political underbrush.

CHAPTER 3

THE SCOPE, PRINCIPLES AND BIOLOGICAL BASIS FOR A NATURAL EDUCATIONAL SYSTEM

THE NEW WORLD-VIEW DEMAND OF EDUCATION

Out of the travail of society there had been born a new social life with new demands to meet the realizations of what has evolved into a fullfledged World-View of Education for World Organization. And these new demands encircling the globe, coming from all thinking men of every race and every nation are focusing upon one central, dominating fact inherent in all humanity itself; and that fact is, in the words of Bridgeman:*

“The mind of the world will ceaselessly demand TRUTH and it will have Truth as far as it

†Education for Social Efficiency. By Irving King.

*World Organization. Raymond L. Bridgeman.

has increasing power to attain it. History will be reversed unless there continues a weeding out of ERROR and a progressive establishment of that which the mind cannot overthrow because it satisfies the demands for eternal verity."

Then indicating along what line education will have to follow for man to increase his power to attain Truth, he clearly expresses it thus:

"World organization must grow out of the essential unity of mankind. It cannot be a federation or any agreement which has in itself the seeds of nullification or secession or any implication that the conditions were created by men and may be destroyed by men at will."

Since organization of any character implies education and preparation, we get the larger view of the features of a system of education which will be comprehensive enough to meet the demands of this "Unity of Mankind" to secure omnipotent Truth found in the very nature of things and which exist and advance in spite of the obstructive creations of men. Our very existence demands that we shall know certain fundamental operations—how to produce, how to distribute, and how to consume. And all law and all constitutions denying the innate right to any human being of the opportunity to secure this knowledge and to apply it to his full content to the resources of the earth, is contrary to the constitution and laws of the "very nature of things" and all such opposing laws and constitutions will be swept aside by the great current of the "unity of mankind".

The growing world-view is that education must be a universal life-growth for each individual of whatever race to realize his or her fullest life powers. The world-view realizes that if a single individual is neglected and does not have the educational advantages to develop his or her faculties to their full content, that the progress of society as a whole is retarded. Every individual who has no knowledge of production must per force live on the production of another; he thus becomes a social parasite, a

drone, or a thief. Drones and non-producers nullify the laws of social progress; in the very nature of things they are social obstructionists. Then the future trend of education must be toward the elimination of the non-producer. In other words, education must be along the lines of SELF-SUPPORT and SELF-GOVERNMENT.

FOUNDATION PRINCIPLES

All systems of human action are based upon some fundamental principles of control. And to devise an educational system that will oppose the rule of a class, it must be based upon principles fitted to the Altogether Control which in itself is Democracy. While the Principles given below may seem radical to some and without an empirical basis, they have been deduced from the various educational experiments which have proven to be sound, feasible and basic. They are now in practice part here and part there in the Junior Republics of the East, in the Commercial-Shop trade schools in Milwaukee, Cincinnati, in the part-time Trade Schools of Fitchburg, Massachusetts, the Commercial-Shop Trade School of Worcester, Mass., in the Continuation Schools of Cincinnati and several more educational tests and plans now in operation in a number of cities.

They have all been subjected to the crucial test of thoroughgoing experience and have not been found wanting. All we need to do is to enlarge upon and coordinate schools like these pioneers to have those that hold to all these Principles; and when we accomplish that, educational as well as political freedom is won.

PRINCIPLES

1. No student can develop normally, become self-reliant and obedient to law, without the democracy of self-government and self-support.
2. Without remunerative labor at the seat of learning, general education is impossible. Such labor, also, should be related to and be a part of a course of study.

3. To secure the maximum of interest, thoroness, speed and efficieney in any technieal course of study, useful labor is imperative.

4. Whole truth can be obtained only when all those seeking it own in common the property necessary to reveal truth and have final authority over said property.

5. The division of any student body into fraternal or sectarian groups is hostile to the spirit and growth of democracy and detrimental to the acquirement of truth.

6. The maintenance of both student and school should, so far as feasible, depend upon commerciale products made by student labor.

7. Educational facilities should cover, so far as feasible, all the vocations of life and should adapt the natural aptitude of each student to the one best suited to him.

NATURAL LAW VERSUS ARTIFICIAL LAW AS THE FOUNDATION OF A RATIONAL SYSTEM OF EDUCATION

How shall we blast a way into the rock of hoary custom and into the flint of educational maladjustment? Where shall we begin? To put these Principles into practice is no easy task. A huge mountain of prejudice must be climbed and an ocean of sophistry must be crossed. But in educational as well as in commercial, industrial and ethieal realms, progress has been made only when the orderly sequence of the universe as expressed in Natural Law has been followed; when we have exeluded exterior supernaturalism and have applied the uniform unfolding of the present out of the past, in a word have followed the Law of Evolution, we have advanced.

We have failed when we have not observed the true sequence of cause and effect in the life of the child. We have arbitrarily tried to pour the child-life of every possibility into the same mould. On a fixed day and year it must be placed into the mould and on another custom-made, anti-nature day and year it must be taken out. Instead of the school to fit the child, the child must fit the

school. The future system will be an adjustment of the school to every condition of the child-life, and will be designed and so appointed to make the maximum social force out of each human unit however strong or however weak in its organic construction. The new system will turn to good account every atom of possibility, every natural tendency, every inborn power found in every yearning breast. It will not tolerate the frightful loss of millions of human seed falling by the wayside, and on the rocky soil of premature toil to produce a fruitage of but five or ten fold; it will sow every seed on fertile soil away from the thistles of greed that each may bring forth a social fruitage of an hundredfold.

WE MUST ABANDON AGE ABSURDITIES

Knowing that the child is an organism and that no two children are of the same mental strength nor have the same attributes of mind, we are safe in concluding that the processes of its growth and education must conform to the laws of organisms. And all organic law operates on the basis of USE or function and adapts itself to the limitations of the organism. And in no truer sense should education conform to the age of the individual. Life from the cradle to the grave is a period of education; and it is a mooted question at what age one's mind is most acute, receptive and educable. The absurdity of our present system and the common error made by many of our educators comes from a Report made to the Government by Henry Suzzallo as follows:*

"That class in the community especially favored with mental ability and financial resource, and for whom the colleges are intended, should in general complete its liberal education by the end of the twentieth year. * * * The period of plasticity during which a human being can be PROFITABLY educated is not coterminous with life; people may be somewhat flexible and educable to the end of life, but the period of great-

*Bulletin No. 38, 1913, U. S. Bureau of Education.

est educability closes for most by the end of the twenties."

Very evidently, from this quotation, our system of education is not intended to give ALL our boys and girls a liberal or vocational mind power, but only those "favored with mental ability and financial resource." And, too, the colleges "are intended" for these only. This is and has been the aristocratic view of education down thru the ages.

We hear educators state at conventions that the Public Schools must prepare candidates for our universities and colleges. In fact, that is the general accepted view of most of our teachers. But when we remember that but one-tenth of one per cent "favored with mental ability and financial resource" can complete a university course, we can more fully understand the motive behind our present system.

Twenty-nine persons gain a living in business to one who gains a living in the professions, and about 74 persons gain a living in the agricultural and mechanical fields of labor to one in the professions, while a vast horde gain their living at common labor and nonadvancing jobs. From this statistical point of view, we surely can see that a system maintained at public expense to prepare one out of a thousand for college and the professions and incidentally teach the rudiments of knowledge and a mass of useless time-wasters to the great generality of mankind, is not only absurd but essentially unjust and preposterous.

The fitting of the age of persons to our school system is unbiological and a failure. Custom has shamed many a valuable young person from attending school slightly overage or above the average age of a class or grade. The future system will be open in every grade, in every study in every project, in every department to every person of every age. The school should be the repair-shop for any mentality to become a better social asset as well as a place to build early mental structures.

But this innovation, so sweeping in its scope and utility, brings me to consider a natural age question of vast importance to any comprehensive plan of education and for which probably a new one should be especially built. It is the question of segregation of youth as soon as they reach the age of puberty for school training.

THE DEMANDS FOR SEGREGATION AT THE AGE OF PUBERTY

The question society has not settled for its general welfare, is at what age should an offspring cease to be maintained and controlled by its parents? When does a human being really become self-supporting and self-governing? To say a boy at twenty-one and a girl at eighteen has reached such an age, is arbitrary and without scientific foundation. To the biologist, Nature has declared otherwise.

Every physiologist as well as every psychologist will affirm that when Nature matures the reproductive functions, that she thereby places her seal of adulthood upon every such individual. This "wonderful" change and development in every normal individual at about the age of 13 or 14, in a few cases as late as 16, is a phenomena of vast import to an efficient educational system founded upon natural law. At this age the umbilical of dependence upon parents is severed and life takes on new desires, new impulses animating the fertile being to enter into the activities of life preparatory to the building of a new home. In fact, when we consider education broadly, it can be summed up in stating that it is to make the HOME a worthy unit of society. Profit-making is surely secondary to the Home, but in our present system PROFIT is placed first and Home last.

Every mother and father will testify that as a rule their trouble with their boys and girls sets in largely at this physiological turning point in the life of their normal children. They become less obedient, demand more freedom, are more self-assertive. Unthinking people say with more wisdom than they realize, that youths at this near-adult

age have the "swell-head". And they have very definite ideas of their own; visions of achievement, visions of how they will acquire wealth, learning, position, and the ideals of a sex relationship. And to all this they have a warrant deed direct from Dame Nature, a title which no man-made law nor custom nor whim of parent can ever set aside or annul.

And why should we wish to suppress this incarnation of a new momentum to life? Why should we wish to hold it under control and restraints? Why should we wish to confine it within narrow school-rooms removed from the very activities Mother Nature, in all her amazing creative power, hath ordained and approved? How can a boy or girl cultivate the power of self-assertion, hanging to the apron-strings of mother? Are not the mother's sympathies too shielding and too weakening? When war comes do we not take the boys in their teens away from mother and place them in the cantonment there to undergo the daily course of forced marches and all the hardening processes that they may stand the nerve and physical strain of the battle front? The industrial battle calls also for recruits with trained and well seasoned nerves and muscles from the actual school of experience. Industry demands it, our willing boys and girls demand it, society as a whole demands it, and we **MUST** have it.

The segregation of youth is not a new innovation. We send our girls early to the convent, female seminaries, private boarding schools, and our boys to military institutes, agricultural colleges, business colleges and to many more training institutions away from mother and home. But to attend these schools, one must have parental support and this is possible to but a small per cent of the whole student body of the country. That great army of ninety per cent of our children are not provided for in our schools of higher education and eighty-five per cent of the ninety must leave school between 12 and 16 to earn money. This shameful blot upon our civilization must be erased by reorganizing our system or building a

new one based upon the seven foundation Principles named above.

Elmer H. Fish, Principal of the Worcester Trade School, has done much to develop the ideas embodied in the Foundation Principles already stated. He says:*

“It is wonderful what an amount of potential energy there is in a 14-year-old boy that can be turned into a large amount of valuable work. And that institution which could pay wages to its students is the best possible solution of the educational problem.”

At the Worcester school, wood and iron are manufactured in the various shops for the market and the student is paid for his labor while learning a vocation. A boy there can earn \$1000 in four years. His expenses for that time are but \$600. And as Professor Fish says, parents whose children need the training most, cannot afford to make an investment of \$600 in each child.

At the Cincinnati University the part-time system is practiced. A student studies in school one week and the next he works in a regular machine shop or factory in that city on a wage and under the direction of regular craftsmen. The Principal, Professor Schneider, reports that a boy can earn \$2000 in six years by this half-time work, which is five times his expenses. He also says that the demand for training associated with remunerative labor and a course of study is so great that three thousand applicants for admission had to be turned down because of lack of room. That the demand for self-help in getting an education was practically limited only by the number of young men and young women in Cincinnati. What is true of Cincinnati is true in every city and every town and hamlet. The most significant fact today is that men of all classes have come to look upon education as a thing that will better their conditions; something that will enable them to live fuller lives, pay their bills, and become better members of society.

*Examples of Industrial Education. By F. M. Leavitt.

CHAPTER 4

EDUCATIONAL ORGANIZATIONS FORESHADOWING THE NEW SYSTEM

THE CORRESPONDENCE SCHOOL

So pronounced are the demands of thousands of minds of high capacity to become of greater social and industrial value and to have a hand in the lines of employment that promise advancement, that many men of foresight seeing the financial gain in this large endless field, have invested thousands, and even in one case several millions, of capital, and have employed the highest talent to cope with this immense virgin field of education.

So minute and exacting are the demands of industry for skilled labor, trained engineers, expert electricians, agriculturists, salesmen, accountants, advertisers, story writers, market gardeners, insurance and real-estate agents, architects, construction superintendents and a vast number of railroad, building trade and mechanic art specialists, that these Correspondence Schools have under the private-capital-profit incentive developed a most marvelous system of technique, text-books, displays, local agencies, and methods of instruction, all of which makes our FREE School System measure as a mole-hill to this mountain of exactitude and efficiency.

And while these schools demand large scholarship fees and are making the man at the bottom of his career pay dearly for his start, yet their results are so prolific in meeting industrial demands that the price is gladly paid and of course the Corporation School is making millions on this public necessity. The public won't do it, a Corporation does it and reaps a harvest of many hundred-fold. The public school is spending millions more in teaching rudiments, while the Corporation with business frugality and sagacity is teaching practically all the technical, commercial, literary and art knowledge needed in the business and everyday life of our country. This shows

conclusively that the administration of the one is a public byword for inefficiency and waste, while the other is one of the most completely organized structures known to the business world with every detail so thoroly worked out that every scientific phase of every large vocation or industry is taught so that the average man can put it all into actual practice and thus increase his chances many-fold for success.

These are the schools that are making the Designers, Electrical Engineers, Draftsmen, Superintendents of Power and Lighting Plants, Chief Engineers, Chief Electricians, Substation and Switchboard Operators, Wiremen, Signal Maintainers, Dynamo Tenders, Foremen of Foundries, Plumbing Manufacturing, Machine Shops, Steel Mills, Building Material Factories, and a vast number of producing organizations of Capital. Students of these schools become expertly trained for some particular trade, industry or profession, which has a distinct object in view and the training moves toward that object in a straight path. They teach, as all other schools should do, the theory and practice, the knowing and doing about the world of production. They place a man above the fear of WANT and give him hope of increasing prosperity as he advances in life. It is this technical education that gives welfare to millions and makes for the progress of civilization. They are schools of actual business, actual results and actual need.

One of these schools in Pennsylvania has an enrollment of over two million, has home-office buildings covering five acres, has 2500 employees, has 280 courses of technical study and all the text-books to instruct with the most perfect exactness of detail and has in thousands of cases increased the earning power of typical students \$128.58 per month. Reports on 27,000 typical students show 14,990 now receiving \$1500 a year or more, 2451 receiving \$2500 or more; 413 receiving \$5000 or more; 20 receiving \$10,000 or more; and 8 with annual incomes of \$25,000 or more. Who can point with pride to such a showing of any present public school?

TRADE SCHOOLS

In his report for 1910 the United States Commissioner of Education says:

“In general, there may be said to be three types of industrial training: 1. Complete trade training, in which the effort is made to graduate finished mechanics or skilled workers capable of doing journeyman’s work and earning journeyman’s wages. 2. Intermediate or preapprentice trade training, in which it is sought to shorten the period of apprenticeship or to give skill and intelligence preparatory to industrial occupation. 3. Industrial improvement or supplementary instruction for those already engaged in industrial pursuits.

“The number of vocational schools in 1910 was 195. * * * In only 41 schools is it possible to learn a trade completely; in 120, many varieties of apprentice work are offered for the student’s choice; in 58 schools is furnished what is known as Continuation Training, which is intended to give higher efficiency to journeymen of inferior grade or to fit the most skillful workmen for foremanships.”

A high authority says about our Technical Training schools that they are “utterly inefficient”. That many of our states have no vocational schools at all. Germany with half our population has 12,000 technical schools teaching a million and a half students. We have a beggarly 195 schools including several manual training high-schools with scarcely 50,000 students. Thousands of persons in sore need of industrial education must go without or resort to the correspondence or other private concern.

But, as has already been stated, we have a few of most excellent experimental and real trade schools which ought to be sufficient to leaven the whole loaf. Probably the most efficient is the one at Worcester, Mass. At this Trade School they make wood-turned goods, rough foundry

work, parts of machines and some small machinery, all for sale. It trains only machinists; pattern-makers, carpenters and cabinet-makers. It is under a Board of Trustees elected by the City Council, and is supported by the city and state.

At the Milwaukee Trade School for Boys they train in Pattern-making, Tool-making, for Machinist, in Carpentry, Woodworking, Plumbing and Gasfitting. The courses are for two years of 52 weeks except Plumbing, which is for one year. About "one-fourth of the student's time is devoted to academic instruction incidental to his trade." Their mathematics is SHOP Arithmetic, SHOP Algebra, SHOP Geometry and SHOP Trigonometry. Notice there is no waste of time on the UNSHOP kind. "The school does not claim to turn out journeymen mechanics," says its Prospectus. "Its aim is to instruct its students thoroly in as short a time as possible, in all the fundamental principles and in the practice of the trade in question, so that they may upon graduation possess ability and confidence and be of immediate practical value to their employers and receive a fair remuneration at once." "A special feature of all the classroom work consists in adapting it as nearly as possible to the special requirements of the various trades." "The cost of maintaining this school is approximately two hundred and twenty-five dollars per year for each pupil." Boys must be 16 years of age for admission. Tuition is free between the ages of 16 and 20, but students are charged for materials used.

In the Trade School for Girls the Trades offered are Dressmaking, Millinery, Applied Art and Design and Household Science. The AIM of this school is in the exact wording as given above for the Boys' Trade School and it "does not claim to turn out experienced workers". Girls enter at 14 and may complete the courses in about two years. Three-fifths of the time is spent in actual shop practice.

Inasmuch as the Prospectus does not state that the students receive pay for their salable products, a letter to

Supervisor C. F. Perry gave the following information in reply :

“In reply, will state that while these two schools are administered under a three-tenths mill tax, every problem given to every pupil is based upon commercial methods. A resolution passed by the Board of School Directors several years ago reads as follows: ‘Resolved, That the products of the Schools of Trades for Boys and Girls may be offered for sale in the open market at current market prices.’ Our Girls’ Trade School performs work in Dressmaking and Millinery for customers. Our machine shop is building, at the present time, one hundred lathes to be used by the public schools of this city. Band saws, jointers, grinders, gas engines and other tools also are built upon order. In our Pattern-making and Woodworking Departments we also do order work.”

TRADE SCHOOLS ON PART-TIME SYSTEM

The Cincinnati University was the first to introduce the Part-Time plan of co-operating with certain manufacturers in the city in placing the University students into the regular factories alternate weeks. One week in school and one week in the shop doing regular machine work under the eyes of the foremen of departments. Boys are thus paired off so that the same machine is run all the time. For this shop work they get 10 cents an hour with an increase of one cent every six months. The course of study is six years, and during that time, Dean Herman Schneider says that they earn about \$2000 or five times their school expenses. School runs eleven months a year. The demand for this pay-system is so great that thousands are turned away for lack of room.

So widespread has been the interest in this plan that other cities have adopted similar methods. Fitchburg,

Mass.,* was the first to take up the plan in 1908. Sixteen manufacturing concerns joined in co-operating with the Fitchburg High School Industrial Department. Of the 40 school weeks per year, 20 are spent in the shop of a manufacturer where the student is paid 10 cents an hour the first year, 11 cents the second, and the third year 12½ cents an hour. "This compensation is a strong inducement for the boy to continue in the course. He can go to school and at the same time earn as much as he could get from ordinary employment in stores and offices." When there is a vacation the shops furnish work for all those who wish it. During July and August those desiring to choose the industrial course are given a trial in the shops and if the pupil likes the work and shows aptitude for the trade he continues with the course. A practical shopman is director of the course and all that the employers insist upon is that "the course be practical". The choice in the course are of the following trades: Machinist, Draftsman, Moulding, Pattern-making, Sawmaking, Sheet-Metal work.

CONTINUATION SCHOOLS

Boston and Cincinnati have what are known as Continuation Schools to piece out what our Public Schools do not do or try to do. In Boston a School Committee with the co-operation of Merchants hired a room and organized a Dry Goods, a Shoe and Leather, a Preparatory Salesmanship and a Banking School. In each of these the technical subjects and the materials and their sources and manufacture were studied so as to give the employee a fifteen-week course of practical knowledge of his daily work. These courses are repeated twice a year for 15 weeks each. They have proven a very valuable addition to the efficiency of those already employed who made good help but were mentally unfitted to give the employer the best results. These schools are taught by a teacher from the Public Schools and by heads of departments and experts.

*Bulletin No. 50, 1913, U. S. Bureau of Education.

The Cincinnati Continuation Schools run 48 weeks a year and are for machine-shop apprentices who attend but four hours per week and get for the time the usual wage paid by their employer. They have blue-print reading, freehand and mechanical drawing, practical mathematics, shop, science and theory, English, spelling, commercial geography and civics. The Ohio law of 1911 authorizes School Boards to establish Continuation Schools. There are also Continuation Schools for girls in which they take orders for dresses and millinery and are paid out of the receipts from these goods.

EVENING SCHOOLS

Nearly every city now has its regular Night Schools in which children and adults are taught special practical courses and cultural studies which are supposed to adapt the student to his industrial environment and increase his ability to earn his living and be a better producer. But such schools are generally poorly attended. They, too, lack the facilities to illustrate the work of the classroom. They are taught as a rule by inexperienced teachers taken from the day schools of the city who of course are not versed in the Crafts or Trades into which the pupil is likely to merge.

These schools in themselves show that we are piecing out what is wholly an inefficient system and, too, that our industrial system is so mad after the dollar that it must use our boys and girls to run automatic machinery and thus save high-priced labor. The Night School is a blot upon our civilization and should not find a place in any well-organized society. The night is no time for a brain in a weary body to be active. Neither is a schoolroom with nothing but benches an inviting place for industry to be taught.

THE GARY (INDIANA) SCHOOL PLAN*

With school open twelve months in the year, open on Saturdays for voluntary work by pupils, and evenings for Continuation School work as well as for social and recreational activities, the use of the Gary school plant is more in accord with the needs of every community. The Gary system is a step forward, but with that step there is associated the traditional CONTROL that is altogether undemocratic.

There is a most perfected and equipped set of school buildings, from the two large ones—the Froebel and Emerson—down to the smaller ones, even to the portable structures for special work, on about 13 acres of ground. There are the shops equipped with modern machinery with regular skilled mechanics as teachers, and nearly all of which are self-supporting and some a source of revenue to the schools. There are the gardens, playgrounds, houses for pet animals built by the students, tennis courts, sand-pits, wading pools, trees, and almost every conceivable kind of apparatus made by the pupils for the playgrounds. There is the Auditorium where the children are at certain hours engaged in dramatics, singing, listening to the player-piano or illustrated talks, or looking at the moving pictures. Charts, maps, specimens and other material are found in the corridors. In the laboratories, older pupils are showing younger ones apparatus and processes or specimens, or teachers are conducting classes.

There are many new innovations most highly commendable. The grade pupils and high-school pupils are all in the same buildings and high-school work begins down as low as the fifth grade. Work is fitted to the bent and age of the pupil regardless of old customs. Teachers are all specialists. Even the common school branches are divided between two teachers for each class. The schedule of classes is so arranged that half the day of seven hours is given to regular studies and the other half to special activities. By alternating a classroom period with an active

*Bulletin No. 18, 1914, United States Bureau of Education.

period the old plan of "confining" pupils in their seats for three hours is entirely replaced by a more natural one. The desks have vises attached and the tops are removable so that with the stool for a seat they can be changed into a workbench or moved outdoors or into the corridors for such work as sketching, copying, etc. Repairs, making new furniture for the school, keeping the accounts, printing and making notebooks, cuts for illustrations, and re-binding books for the large library, are all done within the school by both teacher and pupils. It is a beehive of industry and interest. It eliminates the misfits, provides for the mentally and physically weak, for those that are defective, retarded or exceptionally bright, and all are promoted by subjects. Thus the flexibility of the Gary schools is nearly ideal.

THE BIG OMISSION

With all this admirable organization of educational forces in the kinds of schools described above and the undeniable fact that they all are more or less a social necessity, yet it cannot be said that any of these schools prepare any one for the exercise of his civic duties and the just relations of men.

What is Industry without an equalizing all-together control? Only the football and speculative arena of the strong. To a workingman, preparation for government and control is as essential as learning how best to produce, else what will become of his earnings? Society fails and decays the moment it tolerates any legislative act that gives to the strong any privilege to extort from the earnings of the weak. Probably the most important function of a rehabilitated educational system will be its power to place the **CONTROL** of the equitable distribution of wealth in the hands of the **WEALTH PRODUCERS** and to eliminate the social parasite. And this can be done only by the **PRACTICE** of government. But to practice government the government makers must get together under some such plan as the School Town offers.

The Correspondence School is the least fit to perform this all-important function with its scattered students. It fits men to earn higher salaries under a control that rules markets and production in its own interests. It stands for wealth concentration and keeping the skilled engineer or foreman ignorant of the first principles of democratic rule. The Trade Schools are equally as weak in the teaching of civics, tho they all claim to give such courses. They are easily manipulated so as to be simply mills to grind out better profit-makers. What we need above all in any justice-loving civilization is civic-men as well as laboring-men. Men who can make and understand a just law as well as make an honest suit of clothes or an honest loaf of bread.

The Gary system, with all its beautiful surroundings and remarkable appointments for industrial efficiency and fitting the school to the child, has beneath it all the hidden fist of control giving out a servile training of how to make a dollar and incidentally of how to make more easily utilized labor for the near-by Steel Mills. Its control is vested in a Board of Education, and, like all such Boards, is politically appointed or elected. The cost of the buildings up to 1914 is \$620,528. Of this cost \$332,500 is a bonded indebtedness which is proof that the people of Gary do not own their school plant. The majority of the "stock" belongs to the Bondholders and of course that carries with it the power of control.

The only hint at self-government at Gary is a student organization known as the Council of Boyville which is an imitation of a City Council. This Council passes "ordinances" with no referendum vote of the student body, thus following the old system of lawmaking by the few. But none of these "ordinances" become effective as a part of the organic law of the school. They are "play laws" and therefore worthless as a means of discipline. While the mechanism of this school is much like a great playhouse with every device to secure and hold the inter-

est, thus reducing the discipline to the minimum, still the principle of "master" teachers and obedience to adults is there. They do not allow SELF-GOVERNMENT.

THE JUNIOR REPUBLIC*

Many are not aware that since 1894 a most highly democratic and largely self-supporting educational experiment has been in operation at Freeville, New York, and that from this father institution at least six others have been established in the East, one in California and one in England. These actual practice schools in both self-government and student self-support come the nearest to a practical solution of the educational problems of the present and are the forefathers of what the future educational system of the whole country will be if we are to have a self-perpetuating civilization based upon equality of opportunity and civic justice.

The greatest achievement in education will be the combination of academic study with productive industry under democratic control. The Junior Republic is the nearest approach to this achievement. They are town democracies in which every student is a citizen of the Republic and has a voice in the making of the laws and in the election of the officers to execute those laws. They have a legislative body which at the start was a double one as our Federal Congress is yet. But they soon found the weakness of a double-house legislative body as well as its inelasticity and obstructiveness to the will of the majority; so they discarded the Senate and now have a single legislative body that responds to the electorate quickly, as it should.

These Towns have been built largely by donations and student labor and contain nearly every sort of business found in any modern town and, besides, a farm on which to grow most of the food and raw materials. There are banks, hotels, laundries, plumbing shops, printing plants, carpenter shops, stores, bakeries, shoe-blackening parlors,

*Citizens Made and Remade. By William R. George.

tailoring, dressmaking and millinery shops, and in fact all industry needed to supply local demands and often to fill orders from the outside. Students are hired in whatever line of employment they choose to follow as a future business and are paid for their labor. All labor is of commercial value and products are sold. The farm has been improved and the buildings have all been built by student labor under direction of skilled farmers and mechanics.

The motto of the Freeville Republic is "Nothing without Labor." And whether the student comes from a rich or poor family he or she must labor and be a productive unit in the busy hive. There are no drones, no nonproducers, no vagrants. Obedience to law is well-nigh universal. The courts and police, both wholly student-citizens, have very little to do. Boys from the vilest slum districts with the most savage-like habits of doing daredevil deeds or boys from rich parents who have been sent home from other schools as incorrigible, here become the best citizens under the influence of self-government and the responsibilities of making a living by honest toil.

Two features of these Republics, however, have operated to lessen their usefulness and their more rapid extension. The first is the small amount of land they had at their disposal on which to develop more lucrative lines of production and more diversified vocations; and the other is that they have no co-ordinating control that cements them together under one general directing head. Each stands alone under the direction of a Board of Trustees, each of which manage and plan as they think best. And while they have done many things to develop the natural aptitude of the student and to prove that our Public School system is far behind it as a social regenerating system as well as a far more natural system of education, yet they have no interrelations with one another which would add greatly to their powers of development and growth. In other words, they are individualistic in the way they are founded and supported and not self-gen-

erating and self-supporting. They are too limited in size and scope of work to meet the tremendous demands for such institutions. Every county of our populous states should have such an industrial school town. But it will require at least two sections of land to provide the soil and building sites.

The Freeville Republic started with but 58 acres of land and now has about 248 acres and has never been able to provide for more than 400 student-citizens at a time.

CHAPTER 5

THE SCHOOL TOWN SYSTEM WITHOUT TAXATION

This is an age all aglow with rapid change. New institutions are being forged almost daily to replace the old. New horizons and new points of view are appearing and men are becoming more united and more submissive to the generalized world-views resulting from a better understanding of the laws of universal harmony and agreement.

And knowing that all movements during the past ages that have persisted have been those supported by Schools, it has become evident that if we are to have real Democracy, real Freedom, real Justice, and real Brotherhoods of Men, we can have it all only thru the medium of the School. Therefore, to develop a rational system of education, the writer has concluded that the segregation of our youths at the age of puberty is all-important for their welfare as well as for the welfare of parents and society. At this crucial period of life, there is a merging into the vicissitudes and the mechanism of the community life and we should provide such a transitional institution as will prepare the individual to play his part with the least social loss and for the highest attainment of his mind.

THE SCHOOL TOWN SYSTEM TO RATIONALIZE EDUCATION

The School Town System contemplates the founding of real towns devoted entirely to school purposes and located away from all city influences upon tracts of land of a thousand or more acres of productive soil on which to grow all the raw materials possible to grow in one locality and also to inaugurate the various special and general agricultural lines of production. Then in the center of the town plat, about a hollow square of perhaps ten acres, the simple buildings are to be erected by student labor for the several mechanical and academic departments associated there also with those devoted to the commercial and manufacturing industries. There is also to be a large assembly hall in the central administrative building and special rooms for courts, police quarters and all the civic departments considered necessary to the proper government of any advanced community in which persons and property must be protected. For living quarters there are to be cottages upon the home-like plan on large airy lots facing on wide streets. And besides all this there are to be special buildings even tho small for the personal service employments as tailors, barbers, cleaning and pressing, and shoe polishing, for the various farm purposes and for cold-storage, telephone exchange, post-office and bank.

A MINIATURE DEMOCRACY

Such a School Town should be a miniature world of Democracy with all the problems of social adjustment to be worked out under the same struggle to make a living as in the outside world with the one large exception, that opportunity will be open to all alike and special privileges to none. Since this will be an aggregation of coordinating agricultural specialties with manufacturing school-shops or specialized factories in which all grow or make things to sell for self-support, it will be found that they will first

supply the local "trade" which will provide all the experiences of making, delivering and consuming found in any well organized community.

The parts of machinery, implements or other products to be made will largely be those which outside manufacturers suggest to be made and which they can use and will buy as is done at the Milwaukee and Worcester Trade Schools and at the Junior Republics. In fact these schools are to be fully correlated with existing industry and in no sense to become competitive but rather exceedingly helpful and in fact indispensable to industry. Why should not a near-man at fourteen make soap, ink or baking powder as well as a nearer-man at twenty-one? Why be so arbitrary with nature as to deny our custom-made "under age" persons industrial rights when done in their own interests and in the interests of society as well? Why waste the seven years from 14 to 21 in doing "jobs" and learning rudiments when they can learn a vocation and earn their living at the same time and reach manhood with exact knowledge about a definite calling that will always keep them from penury? When it comes to War our blind custom vanishes. Suddenly "boys" become "men". Over two-thirds of the Civil War armies on both sides were MEN under twenty-one. But when those heroes returned home, they returned as "infants" under our laws without a vote and under the rule of parent and teacher. This inconsistency can be blotted out only by the introduction of the Biological basis of Education which will allow each individual to develop and mature unhampered by any age absurdity, by fixed courses of study, by limited time to graduate, by an inflexible, iron-clad custom or rule that defeats the natural aptitude or the principles of Evolution as applied to the human mind. Many a youth is capable at eighteen to assume high responsibility and hold it. Others develop late in the twenties or not till forty. The school must meet this natural inequality.

NATURAL ADJUSTMENT OF THE SEXES

While this plan does not contemplate the separation of the sexes, it does provide that they shall commingle under their own rule and be removed from all adult rule. One of our greatest evils is the economic and custom barriers we throw about the normal mixing of the sexes. Rarely do we find parents who are properly mated. And one large cause of this is the restricted choice that fell to the lot of most of them. Our near-adults are thrown into the whirlpool of unmitigated industry, leaving their mating to mere chance. And because some work and some are idle, some have learned a real vocation and a vast number have not, we find that the road thru the Married State is decidedly rough and lined with thorns and thistles.

When ALL WORK and ALL are producers at an institution where riches and idleness cease to be misleading incentives, the sexes will have Natural Freedom and will mate in strict accordance to natural aptitudes, and natural promptings. When a girl has been taught industry instead of society fads, how to care for the home instead of how to play some smart role in a club, and the boy learns some settled lucrative vocation that will anchor him to his home with a steady income, who dare deny that there will be a new alignment of the sexes, a new spirit in the home and a new era of married felicity? From our haphazard, discouraging methods, we are unable to comprehend from our experiences what a real normal association of the sexes would do to correct the alarming family relations we now suffer.

Belated marriage would also become historic, could both male and female earn a "nest-egg" while attending their institution of learning and on leaving each have a savings account of even a few hundred to start a home and the business for which they have been thoroly prepared. At this School Town there will be a reversal from idleness and spending to industry and saving. Earnings cannot be frittered away on catch-penny or habit-making arti-

cles, for they will not be there. With every inducement to thrift there will be every inducement to save and prepare for the future family and future business success. And any one can see that all this desirable control cannot be secured in any city or town with all its commercial allurements to spend.

EDUCATION WITHOUT TAXATION

As Lincoln said, "As each man has one mouth to be fed, and one pair of hands to furnish food, it was probably intended that that particular pair of hands should feed that particular mouth," may we not add with equal truth that "since every man has one brain to be fed, and one pair of hands to furnish food, that it was probably intended that that particular pair of hands should feed that particular brain"?

In 1912 the Boys' Trade School of Milwaukee built 100 lathes to distribute to other schools of that city. They also make parts of machines, electrical and wood work for sale. In the Girls' Trade School, dresses, underwear and millinery goods are made to order and sold. The boys and girls are paid for their labor while learning. At Gary, Indiana, as we have seen, "law infants" make and do nearly everything needed by their schools. At Worcester and Beverly, Mass., boys earn about a thousand dollars during their four-year course. In the Cincinnati University they earn about \$2,000 during a six-year course working part-time in co-operating factories. At the Junior Republics everybody earns his or her living and are building up a substantial industrial school-town in which to work out the problems of self-government and self-support.

If youthful mind and muscle can do all this, is it a dream to say that they can build their own school buildings, make and install most of their machinery and appliances, in fact, do nearly all that is required to equip themselves with their own educational institutions and get an

experience in doing it all that is of prime importance to their after-success in life? Also in thus building, would there not be a pride and interest in such school property not developed by the bond-contract system of exploiting taxpayers? Would we not also leave off all the showy, awe-inspiring trappings and build for strict utility?

Slowly but surely the Principle, "the maintenance of both student and school should, so far as feasible, depend upon commercial products made by student labor", is finding its way into the public mind; and the energy now wasted on motor cars, loafing, following athletics and dissipation will be utilized in the future school to restore society to a normal equilibrium and wipe out the abnormal idle class.

With the heavy school tax and the yearly keep of the big boy or girl, taken from the shoulders of the parent, to what heights could the family not reach in providing comforts and conveniences and even luxuries now undreamed of? EDUCATION WITHOUT TAXATION is not a DREAM; it is to be one of the big achievements of the twentieth century; and with its advent, perhaps more than to any other factor, will it advance the cause of social freedom and remove human misery.

HIGH SCHOOLS REDUCED IN NUMBER

By the School Town system there would be an economy in the gradual reduction of the number of High Schools to about one in each county instead of from five to twenty as now provided. The average county, except those containing large cities, in our most populous states, has but forty to fifty thousand inhabitants. Of this population, not over 10 per cent are of the ages ranging from 14 to 18. And were these four or five thousand removed from the abnormal influences and surroundings peculiar to our overcrowded cities to a School Town, a new revitalizing era would dawn to reclaim our decaying civilization. It would settle to stay settled most of the conditions that

lead to vice, crime and idleness and solve the question of adverse family influences. It would be a large factor in reducing our serious urban populations and in renewing the ambitions of our youth to become allied with the industries connected with the mine, field and forest.

HOW FINANCED AND FOUNDED

Nearly all of our advanced Educational Experiments have been financed by those members of society who have the means and the foresight to see the need of better ways of opening opportunity than by our Free School system. The lands for the seven Junior Republics in the Eastern States were all donated, in one case by the Lehigh Valley railroad. Tools, machinery and even second-hand clothes were generously sent from all over each state and express companies carried quantities of everything free.

But all the work of improving the land, making roads, fences, drainage, and building barns, cottages, offices, and installing machinery and, in fact, everything that was done at each Republic, was done by hired student labor. Once the plant was put upon a productive basis, then self-help and self-maintenance began which in large measure supported each Republic. These Republics are a big step forward and are the pioneers in giving us the empirical knowledge we needed to stimulate our confidence in the self-supporting and Paid-Student Schools. They have shown us how these schools can be started without public funds. We are taxing ourselves millions to support private schools because they give us a measure of real practical knowledge; and if we can have schools that will give us more nearly the ideal education, we will be willing again to contribute to them even more liberally.

The School Town plan already has the first thousand-acre tract donated and it is expected that other donations of like size will follow when once the scope and design is understood and known. If lands already under cultivation cannot be donated, the Association controlling this property will accept donations of any fertile unused or

wild lands located anywhere just so they are not over two miles from a railroad. Corporations owning large tracts of stump or other lands not now in use but with the natural advantages of good water, fuel and building materials, will find that one of these schools located on a thousand acres in the midst of their properties will become the most effective advertisement for unsold lands. The Town would prove up all the qualities of soil, the healthfulness of the region, the possibilities of certain crops, and would bring to the region many productive resources that would be very helpful and a convenience to new settlers. It would be the trading point as well as the place where mill-work for buildings and all the building trade work could be found by the surrounding community. Buildings could be erected by the student labor for miles around.

The income of the Town would come from many sources. From the dairy, food crops, sale of furs, poultry products, blooded stock, nursery stock, fruits, market gardens, would be steady incomes. With plenty of land at hand, every one can make a living. And under high culture a thousand acres of good soil would easily support four or five thousand persons. But the output of the factories, the building trades, the publishing department, the making of toilet articles and family specialties, of confectionery goods and many more are sources of possible large incomes. In fact, the incomes are practically limited to the number of products that can be made at any one place to advantage and to the equipment the Town can command.

Besides the incomes from labor products, it is planned to rent all cottages and sell concessions for any business to be run by any student for profit. Thus a Picture Show would pay into the school treasury a certain per cent of its income, the students managing it would retain the balance. Stores, hotels, banks, bakeries, and other enterprises managed by students for gain, would also pay to the Town a part of their profits.

OWNERSHIP AND CONTROL OF THE PROPERTY OF THESE SCHOOLS

In order to place all the property of these School Towns into safe hands for TRUTH and for the ends of the Seven Principles herein given, the INTERNATIONAL UNIVERSITY ASSOCIATION was organized, which has quite a considerable membership of earnest people from all classes and the highest types of citizens. They include ex-Mayors, City Officials, Doctors, Lawyers, Manufacturers, Union Labor Officials, School Superintendents, High School Teachers and many more of the intellectual classes.

The OBJECT of this Association, as stated in the Preamble of its Constitution, reads as follows:

“First, to establish technical schools anywhere and with them all the means of broadening the educational facilities of all classes under conditions of an enlightened democracy; and, Second, to unite these schools into a co-operative, inter-collegiate association based, first, upon the common ownership of the property of said schools by the alumni and membership thereof; second, upon the sovereign authority of the alumni and membership of said association, and, third, upon uniform and interchangeable courses of study and methods of instruction and administration.

“The membership of this Association shall consist of all graduates of recognized universities, colleges and technical schools, all donors, officers, instructors and graduates of said schools, and all other persons who may be solicited by duly admitted members; but all members are required to subscribe to and endorse the Principles upon which said Association is founded.”

With this sound organization ready to take charge of the property and administer it in accord with the seven Foundation Principles stated in Chapter 3, all donors who themselves are willing to endorse these Principles will be confident that their donations will be used to the best in-

terests of all concerned. All of our present schools, including our public schools, are founded upon class control. Public schools are controlled by local Boards who modify the instruction and change the instructors in agreement with their whims and interests. There is no bond of unity or centralized control anywhere. Every University is a unit to itself with no definite relations to any other University. Every State has its own political-made school laws, requirements and methods of financing. No two are alike. Hence the reason for the many incongruities and lack of utility found in the education of our children and hence in the government that will not respond to the wishes of the majority. This heterogeneity will never get anywhere, except to give educational control to politics and the profiteering class. We must have a centralized, all-together control and unity of purpose before we can have a sound, natural educational system that will also respond to and perpetuate Democracy.

THE UNIVERSITY SPIRIT FOSTERED BY THE SCHOOL TOWN

In the most admirable wording in the speech by President Wilson at the University of Paris, we get the highest concepts of the Spirit of this Age as revealed and championed by the Universities of the world. He said:

“The University spirit is intolerant of all the things that put the human mind under restraint. It is intolerant of everything that seeks to retard the advancement of ideals, the acceptance of Truth, the purification of life. And every university man can ally himself with the forces of the present time with the feeling that now at last the spirit of truth, the spirit to which Universities have devoted themselves, has prevailed and is triumphant.”

But from the nature of the Control over our public and sectarian schools, there is little or none of the University Spirit in them. In fact they are intolerant to the Truth-

seeking spirit of this age and hence the "rapid-fire criticism of a most searching order" coming from educational leaders everywhere

With this Control so thoroly intrenched, the outlook for releasing our schools from this bondage seems almost hopeless save thru a separate organization such as the School Town under the Constitutional checks of the International University Association. It is designed that the School Town will have the genuine University Spirit and will therefore be the means of bringing to the masses of men that freedom of mind and tolerant spirit needed for the advancement of ideals and the purification of life.

THE CORRELATION OF INDUSTRY AND LABOR

Every productive industry requires Materials and Labor. While materials are comparatively easy to get, labor is difficult to control. And under present unnatural inequalities and absurd conditions of obstruction to aspirations, we find labor in a most hopeless state of anarchy and waste. But few are fitted to their positions. Many are but half masters of their calling and millions are not prepared for anything in particular. There is no correlation between labor and industry, no system, no unity of purpose, of agreement or action. And on account of all this, men who control large industries have had to supply the demands of their enterprises by supplementary schools. Railroads have mechanical Apprentice Schools. Big Department Stores educate their clerks in salesmanship. Telephone and Telegraph companies give free courses to their prospective employees. And were it not for these thorogoingly practical additions to our present lame educational facilities, industry would be hopelessly adrift and helpless in securing special trained men for the various processes of present-day production and distribution.

These Corporation schools, however, are expensive and naturally have features of self-interest and lack of asso-

ciation. Students become fastened to one industry with very little of associated knowledge one would get where many vocations are taught. They have a narrow point of view about everything. They do not become trained citizens or become interested in their government.

What is needed is a combination under one supreme control of all technical schools independent of but subject to the demands and advices of all industry. As members of the Association in control of these schools there must be included the manufacturer, merchant, mine owner, lumberman, ranch owner, and all who employ labor, to act as advisors on what is to be taught to fit workers for each special industry and to aid in getting the equipment to meet their demands.

A school with such advice behind it and in which interest, thoroughness, speed and efficiency permeates the whole atmosphere, will command the constant respect and confidence of all employers of labor. And they will be only too glad to take all who are recommended from such a school at regular skilled labor pay. When this alignment between school and industry is accomplished, we will have an era not only of the highest productive power, but also of the highest social adjustment toward justice.

EDUCATION BY ASSOCIATION

One of the most fundamental values to a University is its broadening influence on every student because of the fact that so many departments of learning are associated together under the same management and are taught by a body of men who have also absorbed the broad view of every related knowledge there represented. If this is true of the University, it is true of any school of technology for that larger number of students who wish to fit themselves for the general productive industries. With most of the specialties in agriculture, in mechanic arts, architecture, manufacturing industries, publishing, building trades, banking, and many more of the everyday callings all going at the same time and place with art, method and

thoriness in evidence everywhere, one would absorb enough in such surroundings to make a full secondary course of training. Our present schools are lamentably limited in their scope and cannot be made otherwise as at present founded. They have little or none of the atmosphere of doing and association about them. They are often almost as recluse as was the Middle-Age monastery and the teachers largely as forgetful of the rushing world about them of making and selling as the secluded Monks of old.

Davenport states this indispensable educational principle in this language:*

“In a system of universal education, the best results will always follow when as many subjects as possible and as many vocations as may be taught in the same school under the same management are taught to the same body of students. Much of our education comes from association and the best of it comes in no other way. In no other way can a perfectly homogeneous population be secured. In no other way can universal efficiency be so closely combined with good citizenship. In no other way can activity and learning be so intimately united. In no other way can morals and good government be so safely trusted to a free people.”

FITTING PERSONALITIES TO THEIR LIFE'S WORK

Probably no more favorable and serviceable thing could be done for human happiness and for the best interests of society than to adapt each individual to the occupation best suited to his talents, disposition, personality and special mental powers. It is a social loss to find a ditcher who could be a leader among men. A plowman who could be a great inventor. A deckhand who could be an admiral in the Navy. Or, on the other hand, a lawyer who should have been an engineer, a preacher

*Education for Efficiency. By E. Davenport, Illinois University.

who should have been a farmer, and a vast number of such misfits.

Our present school system seems to ignore altogether this immense field of adjustment. Nothing is done to make for industrial efficiency by well-known psychological tests to put the right person in the right place. There is nothing done to discover individual differences in exhaustion, ability to recover lost energy, ability to learn from practice, of attention, memory, judgment, feeling, imagination, suggestion or emotion.

Young people know very little about themselves and the parents often know less. A boy may have exceptional strength of one or another mental function which, if left to family or relatives or to himself, may go unnoticed and be lost to the world. They do not know when their memory, attention, will, intellectual apprehension, or sensory perceptions are unusually developed which may give them special success in a certain vocation. Our entire scheme of education gives to the individual little chance to find himself. Unusual abilities are discovered by accident. Life's callings are chosen by family traditions, by the success of others, by whims and chance, by imitation, by hope of quick gain, by laziness and desire to reap where others have sown.

We have, too, the deplorable condition of virtually forcing coming industrial operatives to remain in the city because the instruction in city public schools does more to prepare one in general for city "jobs" than for the possibilities of mining, farming, lumbering and other productive industries. In other words, distributional and consumptional knowledge is emphasized to the minimizing of the productional. This of course tends to increase and hold city populations much to the interests of local trade and industries and incidentally to the increased values of real estate. We are sacrificing native talents and powers of mind upon the altar of greed and our schools are the accomplices in the shedding of this social blood.

FITTING WORK TO LABOR.

Not only should the school fit labor to work best adapted to it, but it should also teach how Work can be best adapted to Labor. It is one thing to know how to do a thing skillfully and perfectly in all its details and another thing to have the tools and work so adapted to the labor that the output in a given TIME is the maximum for the least labor expended. A mason may know ever so well how to lay a brick wall of a given dimension, but another mason of equal skill but trained to use a better trowel, to locate the brick to better advantage and to lay them with the least waste of motion, might lay the same wall in half the TIME.

F. W. Taylor, the originator of the Scientific Management of Movement, found† that after the study of the motions and tools of masons and readjusting both, 30 masons without greater fatigue completed what by the old method required 100 masons to do. Also the total expense of the building was thereby reduced to less than half in spite of the increase of wages.

In a factory where various materials had to be shoveled, he found that by constructing shovels suited to the several materials and limiting the weight to about 21 pounds per shovelful and alternated with well-arranged pauses that would give the largest amount moved with the least fatigue, that the average workman who previously shoveled but 16 tons per day, could now shovel 59 tons without greater fatigue. The outcome of this test was that only 140 men were needed to do the work which by the old method required 500 men. Wages were raised 66 per cent and the expense of shoveling a ton decreased one half.

These studies and practical demonstrations in many factories has brot out a set of very definite deductions governing movements which a modernized school should be prepared to apply and teach. This is a vast, largely unexplored field which needs much study to shorten the

†Psychology and Industrial Efficiency. By Hugo Munsterberg.

methods of applying labor to many occupations and processes yet untouched. And no better place could be devised than the School Town with all its interrelated industries, to develop this Science of Motion as applied to all industry.

SPONTANIETY AND INVENTIVENESS

It can be seen that the whole plan of the School Town is toward a full emancipation of the human mind so that there shall be no obstruction to its originality, freedom of growth or freedom of action. Every means should be used to stimulate inventiveness and the interest in the betterment of every department, machine, plant, animal or apparatus in the whole school. By becoming familiar with natural forces at first hand, by living healthful lives, with interesting investigations and experiments going on all about them, with teachers imbued with the principles of educational freedom, with plenty of food and clothing provided by their own hands, with uplifting and idealizing entertainments to keep the mind happy and vigorously stimulated, what else could be the result but the very highest development and accomplishment?

Genius is found when least expected. Should an idea of value come to any mind, it should find a place where it could be tested to prove its worth and applicability. If an invention requiring drawings and models, the place should be at hand to make both without cost. And finally if the tests prove it a success, means of securing a patent should be provided with the least expense to the patentee. With all this opportunity opened at a school, how it would open wide the gate to inventive genius and bring to the front many a mind that would otherwise lay dormant and helpless!

Commenting upon this phase of school work, James P. Monroe, President of the National Society for the Promotion of Industrial Education, says:

“Manual Training in our public schools has confessedly serious deficiencies. There is little

play for individuality. Shop-work should permit spontaneity and inventiveness and should emphasize the constructural side and should connect itself in the closest way with industries of the neighborhood."

UNFINISHED MENTALITIES

Should the present generation correct its mistakes or make amends for its sins of omission? Have unfinished minds the right to make themselves better social assets at such a seat of learning as the School Town where their labor while at school will support them? The constant cry of industry is: "Give us more men who can do things, who are skilled craftsmen, who have the academic training to follow directions and blue prints." If wanted why not supplied out of present unfinished men?

Huxley said with great wisdom, "The crucial test of a successful educational enterprise is catching capable men wherever they are to be found and turning them to account." And the originators of the School Town plan have designed to put this far-reaching educational program into practice.

The most pathetic reality in present society is to see good men struggling to support a family or dependents or even themselves, with an untrained brain as a mill-stone about their necks holding them down and making them the prey of those who take advantage of their ignorance.

All men should be skilled, and if they were, menial labor and drudgery would be reduced almost to the zero point since they would invent means of doing it so easily that it would become almost inconsiderable. The reason we have so much drudgery is because we have so much ignorance. And all society wants a hundred fold more production. We seldom find a family whose wants are supplied. We all want more. Skilled labor only can give us more. Then why not have Repair Educational Institutions where anyone can go to add to his knowledge

or learn a new vocation more nearly adapted to his natural aptitudes?

It is one of the purposes of the School Town to arrange facilities to take as many as possible of these unfinished men and women and let them earn and learn till they become proficient and capable. And when finished, place them in position in the outside world.

Since they would be Special Students remaining but a few months, it would not be well to give them the rights of full citizenship at the school, but reserve such rights to those who take regular courses. This then would keep the local government in the hands of the younger students where it should be to encourage them and to make them feel the responsibility of self-government.

TEACHERS NOT BOSSES BUT EMPLOYERS

It can be readily seen from all we have said about the School Town as a busy hive of industry, with the buzzing and whirr of machinery, with the wide-spreading fields all alive with growth and activity, and with every favorable incentive to stir the aspirations of burning youth into action and accomplishment, that the attitude of the "teacher" will be far from that of the traditional "school-mam" giving her threats and commands from an elevated rostrum and thus repressing every atom of ambition within the yearning breasts before her.

Every student-citizen being paid for his or her labor, becomes an "employee" and whoever directs the employment must become an "employer" to have the proper incentive to get results. When a boy or girl is placed in the position of self-dependence, of working and earning or go hungry, a more powerful "reason why" is behind him or her than simply to do a thing because "one in authority" commanded it. "Nothing without Labor" will be the student-citizen unwritten law. And where there are no drones, no parasites to clog, waste, consume or be an example to live without work, would there not be a

healthy public opinion favorable to workers having first consideration?

To be "employers" all teachers in the technical departments must be practical craftsmen. There must be a real Carpenter to "hire" the boys to do carpentry. An experienced Plumber to take the boys into a house the carpenter boys have built and do actual, salable plumbing. A long-experienced Dressmaker to employ and direct the girls in choosing materials, and in fitting and making garments to sell on order. And an expert Baker to show his "employees" all the secrets of pleasing the palate and stomach. And because everything that is made or done is to be sold and the "employees" are to be paid for their labor, as Professor Elmer H. Fish of the Worcester Trade School says, there will be "Interest, speed, thoroness and efficiency."

Those who have charge of the productive departments will be paid part salary and part in commissions on the products sold. This will place the superintending-teacher on his metal to "produce the goods." He must therefore be proficient in both the art and science of his profession and also a saver of waste in both time and materials. He will be inclined to work early and late the same as anyone in the real business world. He must meet the demands of the market for his goods and that requires just the quality needed to instill the same business acumen and frugality into the minds of his employees—the students. Under this actual-business method of employment, a large per cent of our public, private and sectarian teachers would not only starve but they would be totally incompetent to meet the requirements. That is, they cannot fit anyone for actual business or production.

FITTING TEACHERS FOR LIFE'S WORK

Logically you come to the conclusion that the market for the kind of instructors needed for such an actual-business-training school is at present quite small, and it is. To find men and women, tutored under the old regime, to

assume these tasks and master them, will be one of the difficult problems of the management. To overcome this deficiency, of necessity there must be a **NORMAL TRAINING** department to prepare employing-business teachers to learn the art of **DOING** to meet social demands, and how not to "boss" students under their own rule.

From such teachers there cannot be a do-nothing caste wasting public funds. There will be no "Aunt Julias" "teaching" a school twenty years under School-Board favoritism and leaving a neighborhood pervaded with shocking ignorance and helplessness. There will be no expensive "Normal Schools" not as "normal" as they might be under the direction of state political authorities and in which many of the instructors become "Text-Book Authors" who fatten on deals with Book Concerns. Instead of teaching that the imagination is developed by "stories, fables and the classics", it will teach that reason and judgment as well as the imagination are strengthened far more by mechanism and the study of things. Instead of these Real-Normal Schools splitting hairs over technicalities of Grammar, over the "fine art" of discipline, and magnifying the abstract, it will teach the technique of actual business, the art of leaving discipline alone, and in magnifying the concrete.

TEXT-BOOKS

Such Text-Books as are used will be those adapted to the needs of each department and will not be lumbered with a mass of unrelated subject matter just to make a "good seller". They will be written by men and women who have made a record in originality both in methods of teaching and in developing their departments and in meeting the keen demands of industry. These books will be published by student printers in the school printing plant. Of necessity they will be small booklets which can be modified at little expense to be abreast of new methods or discoveries in the industrial world. They will contain the mathematics, language and geography needed to under-

stand the processes with which they deal and that only.

While doing actual business with the school bank, the student will absorb his banking, discount and interest. While trying to invent some improvement on the sewing machine, he will naturally study up the history of that invention. Before the present Cotton Gin could be invented the history of the Whitney Gin and its simple principle had to be known. All the history worth knowing is that from the evolution of industry and industrial processes and their effect upon the happiness and conduct of men. When students study government from the standpoint of the economic changes, they will see the philosophy of political games. When they practice government they will get applied history by association as a natural component part of the sociology needed to improve their government. They will get also their civics, their power over language, their logic, their rhetoric, their elocution, their quickness of thought and repartee and their dauntless control over self. They will care not "who run" at Bull Run, but will become interested in the historic forces which they can apply that have led to human betterment and achievement and will lead to still greater heights of social justice and redemption. In fact, they will be makers of History.

It will be seen that by this process of teaching, that purely academic work is largely discarded. It becomes incidental instead of the main function of the schoolroom. And at the same time it becomes applied information by which the real thing or process is thereby more easily comprehended. We do not study arithmetic just to become a "prodigy in figgers," but to use it as a means or tool to make workmanship exact and to prevent the waste of materials. And with a material objective in view or a real something to measure and compute, the dry-bones of present school mathematics would be resurrected into life and reality. And most of all, Arithmetic would be based upon Production as well as on Distribution and Consumption.

THE RIGHTS OF STUDENT-CITIZENS

Article XII of the Constitution of the International University Association enumerates six Rights of Student-Citizens which are probably as comprehensive as any brief comments that might be made upon them. They are as follows:

"Section 1. Every student-citizen of said schools shall not be denied the right:

"1. To self-government thru such a form of democratic government as the student bodies of said schools may devise for the conduct of each student, attendance to classes, for social duties, practical business and the protection of all student property while a student.

"2. To self-support in labor largely related to and a part of his or her course of study and on products of commercial value.

"3. To freedom from all sectarian influences or divisions of the student body into unrelated voluntary groups.

"4. To an impartial, scientific psycho-physical and physiognomical examination on entrance or during his first term, to aid in deciding on his or her aptitude and physical fitness for a given vocation.

"5. To a joint and equal ownership in the property of said Association upon finishing any course of study in any one of said schools, and with said ownership the full rights of membership in said Association.

"6. To protection against unemployment and failure in business as an alumnus and to loss of money or abuse of his or her person while a student."

It might be added that students have the right to visit their homes when their absence does not interfere with some particular work of the school, and also to receive their parents or friends while at school.

QUALIFICATIONS AND AGE OF STUDENT-CITIZENS

Willingness to WORK is about all the entrance qualification required. The entrance examination will be directed to get the history of the applicant and to get his present mental and physical abilities. If he cannot read or write, some student can teach him enough to start and the rest he will get by contact with his work, the same as one learns to use a tool by practice.

While the School Town is designed primarily for both sexes above the age of 14 and below the age of 20, yet it has adopted the liberal policy of taking boys and girls, under extenuating circumstances, even as low as 8 years of age. Then, too, as already stated, provision will be made to take Unfinished Adult Mentalities even for a short period of training. To have the voting privilege one must be above the age of 14 and must have been a resident of the community three months. It has been designed that the Government of the School will be in the hands of that large majority between the age of 14 and 20.

No one will be excluded except for lack of room, sex and other communicable diseases and unwillingness to subscribe to the Fundamental Principles upon which these schools are founded.

These schools are to be instituted as much for the rich as for the poor. They are not to be asylums for any class, but red-blooded institutions for every class to become useful citizens and producers.

THE SCHEDULE OF TIME

Everybody should do their work upon a Schedule of Time. Punctuality and the methodical use of TIME are the big factors that make for success. And no school should fail to impress the importance of this element in every career of large achievement. As one uses his time, so is he. If without system, his life is usually made up of waste and failure. Regularity in all we do should become

a habit. For such a habit in eating, sleeping, working and playing will fill life to the brim with health, longevity and accomplishment.

First of all, the School Town will inculcate the value of Time by so arranging its SCHEDULE that the whole community will act with clock-like regularity in all its daily functions. Society as it is today runs riot in its waste and abuse of Time. And this is due to industry being irregular and running by fits and starts to meet the demands of an orderless distribution of products. Society as a whole should be Scheduled and made to operate all its services and crafts with system and regularity. During the World War we had glimpses of how "Orders from Coal, Food and Railroad Administrators" were obeyed willingly in the interests of the general welfare at war. We all with one accord felt that this centralized authority was needed, was to our best interests, was the almightiness that gave us the victory. If this regulation of industry, of production and consumption was so efficient in war, why not apply the same methods to regulate us in Peace? The War taught us that when we act together as one people, forgetting our party and sect divisions, that we are unconquerable. Then by acting together in industry, in trade, in pleasures, in education, in government all on Scheduled Time, what a world of waste and disaster, fear and worry would we eliminate!

SCHOOL NEVER CLOSED

One of the unaccountable features of our present school system is the rule that there shall be a large Vacation during the summer months just while Nature is lavish with all her lessons of growth, leaf-beauty and wonderful productions of flower and fruitage. Just when the Book of Nature is wide open for observation, our children are turned upon the paved, dirty streets to waste their time in undirected "play". This is a grave mistake and at the School Town will be corrected by never closing the school. We do not "close" our cities, factories, or rail-

roads in the real world, then if our youth are to get into touch with life as it is, they must have the same experience they will find in the "outer" life.

What all our schools need is a Constructive Play and not the Destructive sort we now have. A child will be far more interested in a play that benefits him than in one that develops his baser instincts. Then too Play should be evenly distributed thruout the whole year. "All work and no play" is as detrimental to mental and physical development and growth as haphazard, wasteful play. At the School Town every day will bring forth its time for joyous play. And while the great National Games will not be eliminated, they will be discouraged as great betting orgies and combinations to control Pleasure for inordinate gain.

PUBLIC MEDICAL AID

For the highest efficiency to a community like these proposed Towns, every one should be kept well. It evidently would be a mistaken policy to allow the "Fee System" to take advantage of any one under stress of sickness or necessity. Instead of waiting for the patient to get very sick before he calls a doctor, the doctor will be hired on salary to be the judge of when medical assistance is needed and to direct all measures to keep the community healthy. Sickness is more of a public calamity than it is to the individual. The moment a producer cannot work, society loses the products of his labor. Also society by the Fee System is often the cause of epidemics and individual sickness; if it is the cause, it should pay the bill to restore the individual to health. As it is now the producer when sick must lose his income, suffer the pains of disease and pay the bill of restoring himself that he may again become of value to society. This is evidently an injustice that detracts greatly from the word civilized and places us almost in the class of savagery.

Therefore at the School Town the Doctor will be placed in the scientific attitude toward his patients to treat them

with the single aim of getting them well in the least time, regardless of any fee or favor and free from temptation to deceive, defraud or practice any trickery to increase his income. He will thus be able to nip disease in the bud and prevent both loss of time and life.

To aid in keeping the community in health, a hospital will be built and maintained at the expense of the whole community, and at this hospital all will receive full medical attention alike free of any charge.

DISCIPLINE

As has already been gathered, the Discipline will be in the hands of the Student-Government machinery consisting of a one-house legislative body, City Officials, a Court and Police Department; and all infractions of the law will be adjusted by the English system of court procedure which is both swift and just as well as inexpensive.

A student being under his own rule will have a greater respect for it than he would for any adult-made law. And respect always brings obedience to law. If he breaks the law, he knows that he will be dealt with by his peers and that justice will be meted out to him. Instructors will thus be relieved of all responsibility for the conduct of student-citizens and hence the attitude of teacher to student will be one of fellowship and equality. Thus there will be nothing to repress aspiration or spontaneity or to restrict freedom. This does not mean that there will be a looseness to the conduct of students, but quite the opposite; for having the responsibility upon their own shoulders they will feel that they have their own interests at stake and that rude conduct or destruction of property or inattention to duties would all detract from the general efficiency of the school by which they would all be losers. Self-rule also brings out honor and the highest type of public spirit, which are better than rules to popularize right conduct and those higher relations and amenities of a refined society.

THE ALTOGETHER ERA DAWNING

During these awful years of a world war, mankind has come out of the travail of a marvelous rebirth, the ends of the earth have been brot together and every civilized people the world around is anxiously looking forward for those organic changes and adjustments that will give them the fullness of life and the common enjoyment of the heritage of the past. The whole earth seems to have come out of the womb of a new destiny, and that destiny is to give to every human being an assured opportunity to reap the full reward of his labor and to develop his mind faculties to his full content; a destiny of a generous reconstruction and restoration that the weak may be protected against the aggressions of the strong; a destiny that will place human life and human happiness before the traditional rights of property; a destiny that will simplify, nationalize and internationalize law and give to all men a true voice in how they shall be governed; a destiny that shall not only declare that all men are brothers, but shall also enact and enforce the declaration into just law and order so that each one shall receive the fullness and abundance of the earth.

Over the hills of human woe and injustice the blazing sun of expectancy is rising, and men as never before are searching earnestly for Truth that they may be led into just relationships so that peace and plenty may become universal and lasting. And because the general fundamental knowledge needed to discover and interpret Truth and to lay the foundations for a social superstructure that will perpetuate itself, is in possession of the minds of but a small number of mankind, great are the responsibilities that now rest upon them and all the greater will be the brilliance of their achievements if they can so construct and teach that the fulfillment of this world expectancy can be fully realized.

And inasmuch as right thot begets right action and ignorance is the cringing slave of greed, it behooves this

generation to begin at the bottom and build an Educational Structure which in all its foundation stones will be found the power of constructive freedom based upon the just and everlasting laws of a bountiful universe. No time, therefore, is more opportune than **NOW** to institute a supplemental educational system that will harmonize with the present demands of industry and will respond to the world-wide yearnings for liberation and achievement now dominating the mind of the civilized world.

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